ARCHITECTURE AND EFFICIENCY.*

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IT is perhaps somewhat difficult at a time like the present for architects to think calmly and quietly about architecture, yet, when we remember that in times of peace and prosperity we have little time for such thought, it may be that those of us who for some reason or other are unable to take up military duties, and because of the War are less busy than usual, may do some little service for the art we love by thinking about it; thinking first of the works of the great periods of the past and of the lessons which may be learnt from them, and then thinking of present-day movements in architecture to see whether we can separate the good from the bad in them. In speaking this evening on "Architecture and Efficiency" I do not, however, propose to deal other than indirectly with recent architecture.

In studying the works of architecture of the past, one is driven to the conclusion that, while there is much that we see and realise, there is also a certain amount which seems to have escaped us. The famous Greek temples, for instance, are seen to possess great beauty of proportion and remarkable refinement of detail. We may go further, and see how from humbler efforts the masterpiece was gradually evolved, or, looking still more closely into Greek architecture, we discover that what are apparently straight lines are really remarkably delicate curves, curves which we are told look straighter than straight lines would.

Having learnt so much, and possibly a little more, about Greek architecture, we then proceed to incorporate as many features from the Parthenon, or perhaps the Erechtheion, into our design for a pork-butcher's shop, a cinema theatre, or a church in Hanbridge; which goes to show that we have not realised that the Parthenon was a remarkably efficient solution of a definite problem.

About 440 years B.C. a temple was required on the Athenian Acropolis. It was to be used for a definite purpose, it was to be built of a beautiful material. Some of the greatest artists the world has known were available, and long experience had shown how best the requirements could be fulfilled, and what could be done with such a material in such a climate. The result was the Parthenon. Are we really so foolish as to think that were those artists with us here to-day, with our knowledge plus their own art, they would try with our materials and in our climate to make a building for some modern purpose look as much like the Parthenon as possible?

* This lecture was originally given in the Firth Hall of the University of Sheffield as one of a series of public lectures (*see* JOURNAL, 31st Jan. 1914, p. 202). It was afterwards slightly modified so as to be somewhat less unsuitable for a professional audience, and read to the Birmingham Architectural Association, on 8th January 1915.

Let us now glance for a moment or two at some of the wonderful buildings of the Romans, buildings which all who know them rightly admire for their grandeur. First we will consider the rectangular temple at Nîmes, one of the finest and best preserved of its type. With the exception of certain modifications, made for reasons which need not be discussed here, this and many similar Roman temples follow closely on Greek precedent.

But the Romans required several types of buildings for which Greek methods would not answer; in the Colosseum, for instance, we may note that, while columns and entablatures are still used, they are now subsidiary to the pier and arch constructional scheme; in the great halls of the Basilica of Constantine and the various baths in which large areas of uninterrupted floor space were required, massive fire-resisting groined vaults, with windows introduced above the springing level, took the place of the timber roofs used in earlier days; while the Pantheon, a great building with an internal diameter of 142½ feet, was covered by a vast dome with a light-giving central opening.

Greek planning, like Greek construction, was a comparatively simple matter; the Roman architect had to strike out on fresh lines when he planned such a building as the Baths of Caracalla; while a glimpse at the plan of the Roman fora is sufficient to convince one that the skill in planning possessed by the Roman designers was not limited to single buildings, but extended to the efficient grouping of many.

What, then, is the great lesson taught by Roman architecture? Is it not that for new problems new solutions are required?

The text-books tell us how the orders used by the Romans differ from those used by the Greeks, the Roman Doric column being 8 diameters high, while the Greek one is but 5½, that the Romans "invented" the Tuscan and Composite orders, and so on. We spend much time in studying the differences between Greek and Roman mouldings and ornament; in comparatively rare cases we may even study from drawings a complete Roman building or two; but have we really got hold of the fundamental lesson taught by Roman architecture—new problems need new solutions? For often it is in the use of features modelled on the Greek that Roman architecture is weakest; the columns and entablatures, the metopes and triglyphs are sometimes unreal compared with the arch, the vault and the dome.

Byzantine architecture gave us wondrously delicate carving and beautiful mosaics, but these are trifles compared with its gift of the pendentive, a new solution for a new problem, the supporting of a dome on a square plan. The Basilica of Constantine with its groined vault was a great step, but Santa Sophia, Constantinople, while similar in plan to the Basilica, is enchanted poetry compared to the dull prose of the latter, not so much because of marble and mosaic, but rather because of its windowed dome, over 100 feet in diameter, magically poised on pendentives high over its centre, and so giving a culminating point to the interior.

In the cathedrals of the Middle Ages we quite rightly admire the beautiful ornament, the stained glass, the charming lines of the window tracery, the glorious sculptures of such buildings as Rheims and Amiens, and the daring with which the lofty vault of Beauvais was poised on slender supports, but I think we do not realise, or only dimly realise, the struggle towards perfect efficiency that was taking place when these buildings were being erected, the attempt to make the very best building for the definite purpose to which the structure would ultimately be put. We rarely see the deeper beauty which lies beneath the surface.

Towards the end of the Roman period columns were used as supports for arches, as, for instance, in the Palace of Diocletian, at Spalato. The Early Christian builders, who had to solve the interesting problem of rapidly providing inexpensive buildings for large congregations, used Roman columns with lintels, or in some cases, following the Spalato precedent, arches, to support clerestory walls on which rested timber roofs, the dosseret being in many cases introduced between the column and arch so that a somewhat thicker wall could be supported. In some Romanesque and Early Gothic

buildings this use of the column supporting the arch is continued, while in others the support is based on the more customary type of pier with half-column in front, while the Gothic capital was gradually evolved from the Roman Corinthian capital plus the dosseret.

The Early Christian churches, with their long rows of columns and their timber roofs, were far from being entirely satisfactory, and the builders of the eleventh and twelfth centuries strove to produce something more efficient. They took the general scheme of the Basilican church, welded to it the Byzantine centralised plan, and then endeavoured to make the whole building fire-resisting. In carrying out these ideas numerous difficulties were encountered, and one by one surmounted, until at last, with a beauty clear-cut and complete as that of a Greek temple, the Early Gothic cathedral was produced.

Let us glance for a moment at one or two stages in this development. A hall covered with a ribbed barrel vault, supported by a barrel-vaulted passage on each side, had been built by the Romans at Nîmes, and a number of early Romanesque churches in the south of France were constructed with barrel-vaulted naves supported by half-barrel vaults over the aisles, as in the church of S. Sernin, Toulouse. This method of construction allowed but little light to enter the upper part of the nave. The attempt was therefore made, as in the church of S. Etienne, Nevers, to balance the barrel vault on a clerestory, but, while this example still remains, many others must have collapsed. Making the barrel vault pointed, as at Beaune, instead of semicircular, considerably reduced the thrust, but the thrust was still difficult to resist, as it was continuous along the whole length of the vault, and applied at the top of the clerestory, and the latter had to be kept below the springing of the vault.

These difficulties appear to have been realised at Tournus, where a remarkably interesting experiment was tried. The barrel vaults instead of going along the church went across it, and were supported on arches which brought the thrust quite low down, and at the same time this scheme allowed windows to reach up to the highest point of the underside of the vault.

Elsewhere, as in the nave of Vézelay, it was found, as the Romans had found long before, that a groined vault allowed of a lofty light and at the same time brought the thrust low down and at definite points, and so the mediæval builders tried various methods of constructing groined vaults with semicircular arches. Even over a square vaulting bay this led to difficulties; hence the use of the sexpartite vault and the form used at the Abbaye-aux-Dames, Caen, in which the subsidiary cross-rib carries a vertical wall; but in vaulting the irregular spaces round the apse these difficulties were far greater, leading, for one thing, to the use of excessively stilted arches on the shortest span.

It was then discovered that all these difficulties disappeared with the use of the pointed arch. We are told to-day that this is an ugly device, and it was possibly thought an ugly device in the closing years of the twelfth century, for a new form is almost always considered ugly. It was, however, more suitable for the work required, more efficient; and so those who loved the old more than the new, not because it was better, but merely because it was older, had to give way, as they always will have to give way.

Some remarkably interesting problems had also to be worked out in connection with the supporting of these vaults. The barrel vaults over the early naves required half-barrel vaults over the aisles, and they also required thick walls, but the groined vaults brought their loads down on definite points, so that continuous thick walls were no longer useful, support being better given by boldly projecting buttresses and by flying buttresses carrying the thrusts over the aisles, the wall spaces between the buttresses becoming a glazed screen, even the triforium being glazed in some instances. How fascinating becomes the history of architectural development when we think less of trifles and more of essentials, when we think more of the struggle towards efficiency!

I have spoken of Roman planning, and we hear much of this nowadays, but the fine manner in which the mediæval builder solved the new problems which arose in the planning of his churches deserves to be remembered. The simpler plans of the earlier churches were not suitable for the needs

of his time, and he did not hesitate to strike out boldly on new lines. Surely the plans of the great churches at Bourges and Le Mans are fine examples of efficiency in architecture!

If, leaving the works of the Middle Ages, we pass on to the study of the buildings erected at a time when the thoughts of artists were turned to the glories of ancient Rome, we shall find that these buildings are not great in proportion to the extent to which they resemble the earlier masterpieces. One of the finest of all façades is that of the Riccardi Palace in Florence. Yet here the orders are not used; while in that of the Farnese Palace in Rome the orders play quite an insignificant part. The Late Renaissance Santa Maria della Salute in Venice is not beautiful because parts of it are based on classic precedent, but rather because it is a successful solution of an interesting problem, the proper connecting of an octagonal drum supporting a dome to the outer wall of an aisle which surrounds it.

Gothic art had a much stronger hold in France than in Italy, but the French nobles fighting in Italy towards the end of the fifteenth century brought back in their minds the glories of the new movement—which was, incidentally, a better way of treating the architecture of an enemy than that of wanton destruction. The result was the architecture of François I., a virile combination of Late French Gothic and the new ideas from Italy, a style which may not receive official sanction at the present time, but from which useful lessons can nevertheless be learnt. For during this period the French declined to sacrifice convenience to external effect, the general treatment of the exterior being invariably the natural result of the requirements of the building; the steep roofs and great dormers and chimneys are retained, while the details, far from being slavish copies of classic models, are full of freshness and life.

A time followed in France, as it followed elsewhere, during which it would seem that certain forms became fashionable; not, indeed, because they were particularly suitable for the purpose to which they were put, but because there was excellent precedent for them; and so we find, for example, steep roofs with flat pediments built in front of them. The flat pediment had been used by the ancients, and so was thought a good thing in itself. Buildings had therefore to be made to fit in with the flat pediment, though the French designer has never really liked to abandon his steep roofs. So that while there is much that we can learn of quiet dignity, stateliness and repose from the Later Renaissance in France, there is also something which we can learn from it to avoid.

It was an architecture of rules and regulations, and, as there are always those who wish to break away from the formalities of life, so there were those who sought to break away from the bonds of authority in architecture, to cast away all precedent, and to start afresh. It was a foolish effort; for, while precedent is a bad master, it is an excellent servant. But it must be said for the French that even in doing this foolish thing they did it far better than it has ever been done elsewhere, and most countries have tried their hands at it at one time or another.

Let us return for a moment to the more stately work of the Later French Renaissance, and read in it another lesson, one we may well take to heart; for at this time a great step forward was taken towards the making, not so much of efficient single buildings, but of efficient groups of buildings, even efficient cities.

The germ of this movement in France may be found at a very early date, and, while naturally some of the finest examples of its influence are to be found in the capital, its effect on many of the larger towns and cities of France is well worthy of careful study.

In Paris one naturally turns to the Place de la Concorde, with the bridge on the south leading to the Chamber of Deputies, on the east the Louvre, on the west the Champs Elysées leading to the Arc de l'Etoile, and on the north the Rue Royale leading to the Madeleine; while the view of the Panthéon at the end of the Rue Soufflot, or of Les Invalides, upon which several roads converge, serves to remind us of what might be done with our own St. Paul's.

Leaving Paris, we may well note the excellent scheme carried out about 1750 in Orléans, a town

with a population of about 70,000. A bridge was built over the river, and a street made in continuation of this was carried through to a fine square in the centre of the town. Just before reaching the square a street branches off to the right to form a fine approach road to the great church, and, incidentally, giving an excellent view of it ; while quite near to the bridge a short street was cut diagonally, giving access to the market square and also giving another fine view of the church. From the side of the central square remote from the river two fine streets branch out, one reaching another fine open space, and the other now leading direct to the railway station. The tree-lined boulevard which surrounds this town, as is so often the case in French cities, is also well worthy of note. This scheme makes this town a very efficient one, the main buildings being easily seen and readily reached.

We in England are usually ashamed of our railway stations, hiding them away in the slums so that the stranger on arrival has to wander through a mile or so of mean streets before he reaches anything of importance. In France the idea of making the railway station a worthy building and of putting it at the head of a main street is steadily growing—the railway station is in fact taking the place of the Roman archway and the mediæval gateway as the modern entrance to the city.

To give one more example of town planning in France, let us take Nancy, of which we have heard so much recently. A comparatively small town of some 110,000 inhabitants, it exhibits some fine schemes of buildings and streets laid out about the middle of the eighteenth century. The Governor's Palace, with a space in front of it excellently treated with a hemicycle at each side, is at one end of a broad avenue. At the other end of this avenue is a triumphal arch giving access to a square, containing a central statue, and with a main road entering at the centre of each of three sides each leading to another fine archway. On the side opposite to the avenue from the Governor's Palace stands the Town Hall.

Surely fine buildings, well grouped and laid out with due consideration to the whole town scheme, are excellent examples of architectural efficiency.

From the work of the Renaissance period in England we may also learn some useful lessons. When Wren was asked to build some new chambers at Trinity College, Oxford, for instance, he was pressed to build a quadrangle. Wren realised that a quadrangle was wanted, not because it was the best form, but because previous chambers had been built on that plan, and he ultimately persuaded the authorities to accept something more efficient. Greenwich Hospital proves that Wren's vision reached beyond the single building. When he started here, two buildings had already been erected—the Queen's House and part of the King Charles building. While some of the buildings were designed by other architects, to Wren is due the credit for the scheme as a whole. But Wren could do more than the planning of a group of buildings, he could plan a city, and after the Fire of London, while the ruins were still smouldering, he prepared a remarkably fine plan for a new city. This was a splendid opportunity, but unfortunately advantage was not taken of it, England not having realised, as even now England has not realised, the value of efficiency in architecture. Wren was above all a believer in this efficiency, no mere maker of architectural scenery, as is proved by the way in which he tackled the designing of the Library of Trinity College, Cambridge. The interiors of his City churches also show that he saw clearly the problem which was put before him and then proceeded to solve it. To take one point only, he realised that galleries needed proper support, and provided it, as may be seen in the church of St. James, Piccadilly.

Some of the men who followed Wren, notwithstanding the fine examples which already existed, failed to see the problem before them, or, seeing it, they shirked it. Gibbs, for instance, in St. Martin's-in-the-Fields, ran his gallery in a very haphazard fashion into the middle of the columns.

This brings me to a point which I think a very important one : it is this, if we are to benefit from a study of the architecture of the past we must see its failures as well as its successes.

During the eighteenth and nineteenth centuries in England and elsewhere it was seen that the great buildings of the past were full of beauty, but it was not always realised that a great deal of their

beauty was due to the fact that they were efficient solutions of definite problems—problems in which the local climate, the customs of the time, and the particular sites on which they were erected played a considerable part.

As a result of this lack of understanding, buildings were erected in England which were quite unsuitable to the climate or to the needs of the time. Instead of seeing their own problem clearly and trying to arrive at the most efficient solution, the architects of various revivals often neglected important factors in their own problem in order that their building might resemble some famous masterpiece. Such, for instance, was the case when William Kent built a villa at Chiswick on the lines of Palladio's villa at Vicenza, when Wilkins built Downing College, Cambridge, and when Inwood built the church of St. Pancras. Even worse is the attempt which has sometimes been made to copy not only the forms of older buildings, but also their dilapidated appearance.

It is perhaps particularly important at the present time that we should realise the folly of making the use of a building subservient to its external appearance. To Vanbrugh, for example, the appearance of a building was the great thing; a great impression had to be created at no matter what cost in convenience; there had to be a central block, and there had to be two wings. Luckily the house got into the central block, the kitchens into one wing and the stables into another; but, if I know anything of Vanbrugh, he would cheerfully have put the stables in the middle block, the kitchens in one wing and the house in the other if he could have got a better external effect out of this arrangement. For Vanbrugh in much of his work was a scenic artist first and an architect afterwards.

The hero of one of the most interesting of Mr. H. G. Wells's ingenious romances, *The Time Machine*, invented an apparatus which enabled him to travel, not in space, but in time. We have just been enabled, by means of the lantern slides, to travel through both space and time; but, unfortunately, unlike Wells's hero, we are unable to see clearly into the future. We can, however, look carefully into the present state of our art and try to discover how we can best help to give it a great future.

I know there are those who are afraid of what they call efficiency in architecture, but what they are afraid of is, as a rule, not efficiency in architecture at all. Some, for instance, are really afraid of efficiency in draughtsmanship, and I quite agree that we may think so much about drawing that we shall presently forget all about architecture. For students to spend a large proportion of the available time in the laborious casting of shadows is not, as a matter of fact, leading towards efficiency in architecture, rather is it leading away from it.

And then there is the fear that we may turn out "efficient" but inartistic architecture. This is, of course, an impossible combination, but it is certainly possible for architects to think only of a kind of utility and to forget beauty, though the results of their labours would in all probability not be examples of efficiency in architecture. For while buildings cannot be fully beautiful if they are not thoroughly efficient, in the utilitarian sense, it is at the same time true that they cannot be fully efficient if they are not beautiful. It is only the ignorant who would consider the only too familiar plate-glass type of shop more efficient than the fine example recently built for Messrs. Burberry by Mr. Walter Cave.

The real danger, however, at the present time, is that of neglecting utility in the attempt to get a sham beauty, because we do not realise fully enough that beauty in architecture must be based on utility, it must grow up out of the requirements of the building, the nature of the materials used and the nature of the environment.

I am firmly of opinion that for the welfare of architecture it is necessary that the people should be interested in it, and for that reason (among others) I hold that a knowledge of architecture should be considered an essential part of a liberal education, as is a knowledge of literature. Our Universities should not only award degrees in architecture to professional students, but architecture should be an optional subject for the ordinary Arts degree. For those who are unable to obtain the advantages of a University education, lectures on architecture should be provided by University Extension and Workers' Educational Association courses.

Such lectures should deal not only with historical matters, as they have in the past, but also with modern architecture and the principles of the art, and so help to show the public the value of efficiency in architecture. The average man has the idea that if he employs an architect he *may* get a building of pleasing appearance, but that he will probably get a less convenient, and certainly a more expensive, one. The various architectural societies should certainly press for the education of the public in matters architectural.

If the suggestions which I have made were carried into effect such houses as those shown on the screen (a typical slum) would not be allowed to exist; and yet, if one goes into the average English city and asks for Paradise Alley, one is invariably directed to something of this kind. Is it not remarkable that while we think so highly of efficiency in such things as motor cars, bicycles, gramophones and football, we do not realise that the existence of such buildings as these is no economy, but a gross extravagance which no community is sufficiently wealthy to afford?

Apart from houses which are so obviously bad that it is unnecessary to draw attention to special faults, there are vast numbers in many of our towns which will pass a somewhat low test in certain branches of sanitation and quality of building, but which are more or less inconvenient, and certainly painfully ugly. Mr. H. G. Wells, in *Tono Bungay*, puts this matter very clearly: "I took it as in the nature of things. I did not see the oddness of solvent, decent people living in habitations so clearly neither designed nor adapted for their needs, so wasteful of labour and so devoid of beauty. It is only now that I find myself thinking of the essential absurdity of an intelligent community living in such makeshift homes. It strikes me as the next thing to wearing second-hand clothes." Of course, we know the defects of most of these houses: the front door opening into a long, narrow passage or direct into the front room, the back room rendered dark and airless by the long back projection, and so on: and we know of better, more efficient, arrangements.

There is also the general question of the arranging of houses with reference to the site, a question usually dealt with in very simple fashion. One plan is arranged, and houses are built in conformity with it on both sides of all the streets, regardless of the points of the compass. So that people who like the sun in their sitting-rooms live on one side of the street, while those who prefer it in their larders live on the other. Ample provision is also made for those who do not like the sun at all.

When we have got the houses well and conveniently planned, properly arranged on the site with regard to the points of the compass, properly ventilated and warmed, and, in fact, with all questions relating to physical well-being properly attended to, there still remains, before the houses can be considered efficient dwellings for human beings, the question of giving them some dignity and beauty. For the sub-human animals buildings which are merely well built and sanitary may suffice, but the human needs more than these things—he needs beauty. It is not necessarily more expensive to make a house pleasing in appearance than otherwise—we have all seen houses which could have been built more cheaply and yet made more beautiful.

There is also an æsthetic side to the question of the siting of houses. Long rows of small houses, even if well designed, tend to become wearisome and monotonous, and they are rarely well designed. The other day, while preparing some notes for this Paper, I picked up a book by Jerome, *Paul Kelver*. This is the opening sentence: "At the corner of a long, straight street in the far east end of London—one of those lifeless streets made of two drab walls upon which the level lines formed by the precisely even window-sills and doorsteps stretch in weary perspective from end to end, suggesting petrified diagrams proving dead problems—stands a house which ever draws me to it." This might well have been written of the street shown on the screen, a street which is quite close to one of our best garden suburbs.

If we look at this typical plan of part of a great modern English city with its row after row of little houses, probably all exactly alike, arranged on each side of more or less straight streets, we can only see in it the essence of dulness, there is nothing in it to suggest the attempt to make an efficient city, nothing

to show that we have learnt one of the lessons taught by the eighteenth century, nothing to show that we have realised the influence of architecture on human life.

Lord Milner, speaking at the Royal Institute of British Architects some little time ago,* said: "Any man who does good service to architecture does good service to the State. Of all the arts this is perhaps the one which has the widest range of influence, and the welfare of which is of the most vital importance to the great body of the community. We may—I am afraid many of us do—pass through life untouched by the other arts, except possibly music, although I know many people who are untouched even by that, but it is impossible to escape from architecture. Consciously or unconsciously, the Mistress Art has got us all in her grip. Whether the experience is elevating or depressing, pleasant or painful, we are all exposed to her influence. And for that reason I say that anything which is calculated to raise the level of architecture, to keep up its highest traditions, and possibly some day to bring us back to something like an accepted standard, is of the greatest importance to the whole community."

And what, I would ask you, can be done to raise the standard of architecture?

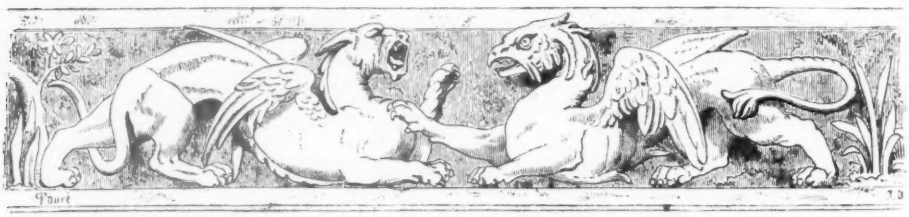
With all our knowledge of the great architectures of the past, with our knowledge of the great strides in sanitation made during the last century, far better things can be done, and are being done, than those which I have just been showing. But if architecture is to become a great living art, an art of moment to the people as a whole, certain steps will have to be taken. We must, as I have already suggested, do all in our power to interest the people in our art. We must also strive to gain and to keep up a reputation, not as producers of fashionable façades, but as efficient architects, designers of houses, shops, schools, churches and cities which are efficient in the fullest sense of the word. In order that this may be done our students must first receive as sound a general education as possible,† and then their training as architects must be on broad rather than on narrow lines. The architecture of the past must be studied not so that its details may be reproduced, but so that its lessons may be learnt. We must try to bear in mind, in fact, that we have not just heard for the first time of the glories of Greece and of Rome, or of the Middle Ages, and that we are not living in the formal atmosphere of the eighteenth century.

In designing a plan, elevation or detail we should be thinking constantly, not whether it resembles Greek, Roman or Georgian work, or even whether it resembles the work which won the last competition, but whether it is the best for its purpose and the best for our own particular city in the twentieth century.

We need, too, a keener criticism of architecture. The works of our brother artists, the painters and writers, are subjected to searching criticism, and these arts are all the better for it; but there is no systematic criticism of architecture. And when our buildings ultimately come before the great critic, Time, those that stand the test will not be the ones which follow most closely Greek, Roman, Mediæval or Renaissance precedent, but those which are the finest solutions of the special problems of our own needs, place and time.

* *See* R.I.B.A. JOURNAL, 8 Nov. 1913.

† The recent abandoning by the R.I.B.A. of its own Preliminary Examination is a fine step in this direction.



TOWN PLANNING IN AUSTRALIA AND NEW ZEALAND.

By W. R. Davidge [*A.*].

THE characteristics of Colonial town-planning and the laying-out of Colonial towns have in the past been governed by three main principles: First, that the land should be expeditiously surveyed; secondly, that the town plan should be even more expeditiously designed; and lastly, that the plots should be most expeditiously pegged out and disposed of. To state that land has been "surveyed" has in the Colonies accordingly grown to mean the actual cutting up into plots. As a consequence of the first of these, nearly all Colonial towns have been surveyed either at right angles to a river, or on a north and south meridian; as a consequence of the second requirement, nearly all streets have been planned and laid out at right angles (except in such rare instances as the nature of the ground absolutely forbade); and as a consequence of the last requirement, the roads are mostly 1 chain (66 feet) wide,* and building blocks are in some size that will divide neatly and comfortably into ten-acre blocks, which in turn can be subdivided into acres and quarter-acres. With this mathematical arrangement there was at the same time a broad appreciation of the value of open spaces and generous treatment of street widths.

Melbourne suburb, back street.

The early plan of Melbourne, for instance, laid out in 1837 by Robert Hordle, was arranged with the main streets, such as Collins Street and Bourke Street, a chain and a half (99 feet) wide both north and south and east and west. The land was then divided into 10-acre blocks, and at the suggestion of Governor Bourke back roads were laid out to give access to the back of each settler's "allotment."

These back roads were made ½ chain (33 feet) wide, and at the present day form some of the most important business streets in Melbourne. Their names, such as Little Collins Street and Little Bourke Street, amply testify to their origin. As the adjoining districts became surveyed, the surrounding farm land was divided into huge rectangular blocks, bounded by farm roads north and south and east and west, at intervals generally of 1 mile.

The later development plan of Melbourne suburbs is particularly interesting as showing a number of suburban settlements formed in the early 'fifties of last century, but each now merging into the north

Melbourne: Little Collins Street, 33 ft. wide, originally laid out as back-way to settlers' allotment.

and south gridiron pattern of the Government surveyor. There are very few radiating roads.

Such diagonal routes as exist are survivals of the early days before the land was completely surveyed on north and south lines, and it is very evident to the most casual visitor to Melbourne that it is these very diagonal roads which are most largely used by the suburban traffic radiating from the city. The St. Kilda Road is one of the most important of these thoroughfares, and takes almost the whole of the traffic to the suburbs south of the Yarra.

* 10 square chains = 1 acre.

Melbourne in 1865, showing suburban development.

The later suburbs are faintly indicated and show the influence of the north and south meridian lines.

Melbourne Railway Stations.

Melbourne: Flinders Street, Railway Station.

Melbourne: Flinders Street, Railway Station.

From the traffic point of view the practical objections to the rectangular block system, in addition to the extra distance traversed, is that, in the absence of any definite main road, all roads are alike, and motor

Melbourne: Collins Street, showing Cable Cars.

or other fast traffic has to take serious risks at every corner. Modern Melbourne has many fine buildings, but its plan remains that laid down by its founders seventy years ago. Additional radial routes will undoubtedly be needed in the near future if the traffic is to be properly distributed, and the present system of slow, jog-trot cable trams will inevitably

Typical Country Stock Road, Australia, 3 chains wide.

give place to swifter means of progression in all directions.

The earlier practice of laying out the main streets as far as possible at right angles to the general direction of the river or harbour on which the settlement was formed gives way almost everywhere in the later plans of development in favour of the easily set out north and south meridians. It has been urged that this north and south arrangement of streets gives the maximum of sunlight to each street, but this is open to considerable argument, and it is evident that the east and west streets should on this theory be made considerably wider.

There are, however, in the smaller towns of Australia several notable exceptions to this rule, in which the general axis line of the town is as nearly as possible inclined at 45 degrees, that is on a line from south-west to north-east, and such an arrangement undoubtedly gives a more equable distribution of sunlight and shade.

The climatic conditions in Australia have naturally had considerable influence on the buildings, and it will be remembered that houses of a wide-spreading one-story bungalow type are predominant everywhere in the country districts. With the exception of the few diagonally planned towns already mentioned, climatic considerations do not seem to have had any

Rundle Street, Adelaide, showing Street Verandahs.

weight in the planning of streets, but wide-spreading verandahs are universal everywhere, and the verandahs constructed over the side walks in business streets are sometimes of a decidedly "mixed" character.

The idea of covering in the side walks in this way has much to commend it, if the work is executed in accordance with a general scheme of street elevation, but this involves a difficult problem in administration. Many proposals have been made for regulating the construction of verandahs over the public street both in New Zealand and Australia, but little success has so far been achieved, and in many cases the heterogeneous collection of advertisements, corrugated iron roofs and wooden posts forms a serious eyesore in the principal streets. For hotels and similar buildings it is customary to have a covered balcony on one or more floors constructed over the public footway, and this feature is one that is much appreciated throughout the colonies.

Tree-planting is the exception rather than the rule, but the wide stretches of grass at the sides of the

broad 3-chain "stock roads," everywhere to be found, offer great possibilities in this direction, although it must not be forgotten that prolonged periods of drought present difficulties from this point of view. The great width of these roads was originally intended to provide for driving cattle, sheep, and other stock over considerable distances, and to allow for pasturage by the wayside.

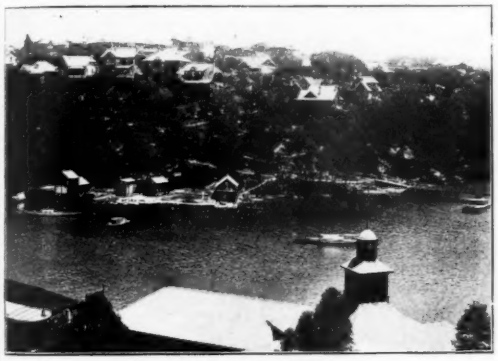
The almost innumerable varieties of gum-tree to be found throughout Australia are a great asset, with their wonderful shades of foliage ranging from blue-green to delicate tints of grey and orange, and in many of the country districts the red soil and varied foliage form a gorgeous feast to the eye in the glorious sunshine.

The practice of "ring-barking" the timber, however, is very general, and whole areas of forest land are filled only with gaunt grey tree trunks, many of them ready to fall. Even in this last stage, however, the Australian landscape has a peculiar charm and delicacy of tint which must be seen to be properly appreciated.

The oldest of the large towns of Australia is, of course, Sydney. The natural position of Sydney is a magnificent one. The first settlement at the head of the little cove known as Circular Quay has in the course of a century and a quarter grown into one of the most prosperous business quarters of the Empire. The earlier suburbs are, it is true, of very straggly growth, but across the harbour, each in its own

sheltered cove, lie half a dozen or so detached modern suburbs, each a thriving township, and brought within a quarter of an hour or so of the centre of the city by an admirable system of direct ferries running with clockwork regularity, and branching out from Circular Quay in all directions. Such a system has many advantages over the radiating main roads of the ordinary town. Sydney Harbour has a total water frontage of 900 miles, and the city has had unique opportunities of making the most of its water front. Opportunity after opportunity has, however, unfortunately been lost, and there is much headway to be made up. With the proposed construction of a high level bridge across the harbour further rapid developments may be expected, especially in the suburbs on the north shore.

A report on the Suggested Improvements of the City of Sydney and its Suburbs, by Mr. A. R. Jemmett, appeared in the JOURNAL R.I.B.A. in 1910 (Vol. XVII., p. 533).



Mosman Bay, Sydney Harbour.

The first town plan of Sydney, prepared by Governor Phillip on his arrival in 1788, was on a most lavish scale. This may be judged from the fact that the principal main streets were to be two hundred feet wide. The hilly and rocky nature of the site, however, and the limited space available soon reduced these dimensions, and in 1823 we find an official report in which we read that the width of streets was 60 feet, with the houses set back 20 feet on each side. Evidently the influence of the progressive ideas which many public men in England felt at that date had extended to Australia. Provision was, even in the early days, expressly made for future widening, for we read in the report of 1823 * : " The rule for building first adopted in Sydney was that of placing the houses 20 feet from the footway of each street, and leaving 60 feet for the breadth of the streets (100 feet in all). The intervening spaces between the houses and the footpaths are generally occupied by gardens in the upper part of the town, and separated from the street by low palings. This space, however, is liable to be taken for the improvement of the streets when required, and all projections that have been made by buildings or otherwise are liable to be removed. . . ."

* Commissioner J. T. Bigge, reporting to Earl Bathurst.

National Art Gallery, Sydney.

In Crown grants " a reserve is made to the Crown of the space of 20 feet in front of the house, in case it should be required for widening the street."

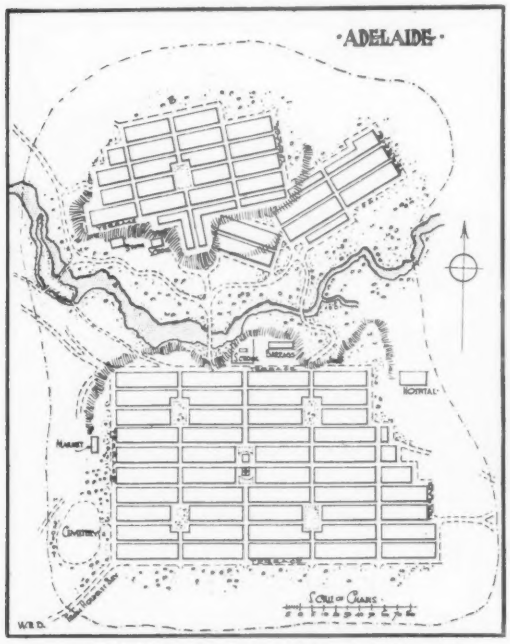
Most of the 60-feet streets of the early nineteenth century still remain in Sydney, but the 20-feet forecourts " reserved for widening " have long since disappeared. The modern map of Sydney and its suburbs is largely " without shape and void," but here and there one can trace on it the efforts of the competing ideals : the commercial needs of the town represented by the original bullock tracks radiating in various directions, and to a certain extent influenced by the steepness of hills here and there, and the opposite extreme marked out by the official Government land surveyor with his 50-acre blocks and north and south meridian roads at intervals of half a mile or so apart, each striving in its own way to bring order out of chaos.

In recent years the statutory width of all streets has been made compulsorily 66 feet, and there can be

no denying that this has been of great benefit in securing adequate distance between the buildings. There are still remaining some of the early stone buildings of the colony of New South Wales, and these are solidly built, but of simple and pleasing architectural proportions.

The Court House at Hartley, 60 miles west of Sydney, shows that even in the convict days the buildings were in no mean standard of taste.

Many were the ideas imported, or rather "transported," from England. As early as 1810 Governor Macquarie introduced *en bloc* into the Sydney building administration the provisions of the London Building Act of that date.* This, although no doubt an excellent Act in its way, and one which had a good effect on the character of the early buildings in Sydney, must have been unduly onerous, and twenty years later we find strongly worded petitions from at least one architect and a large number of



Plan of Adelaide and North Adelaide, as laid out by Col. Light, 1837. (Both town and suburb surrounded by park lands.)

property owners asking that the provisions of the Building Act might be relaxed; and this agitation was eventually successful in achieving the repeal of the enactment.

The founding of the City of Adelaide in the early part of 1837 struck a new note in town-planning. For some years there had been discussions in England as to the ideal form a town should take. For nearly 20 years previously the "garden city" idea of a town completely planned from its inception had met with approval.

Benjamin Richardson and others had each planned their Utopian city, complete in itself and surrounded by a wide belt of open country or park land, but so far none of these ideals had come to fruition.

* London Building Act of 1774.

The great emigration movement to the British Colonies in the early 'thirties and 'forties offered a magnificent chance for putting into practice those ideas which in the home country had suffered from lack of opportunity.

Colonising companies there were in plenty, and amongst these one of the most noteworthy was the National Colonisation Society founded in London in 1830, with which was connected Edward Gibbon Wakefield, who at the same time was doing so much for the development of New Zealand.

In 1834 Parliament passed an Act establishing the Colony of South Australia under a board of eight Commissioners, and in 1836 the first eight vessels arrived with immigrants.

Colonel Wm. Light was appointed Surveyor-General for the province of South Australia, with full power from the Commissioners to establish the city

Adelaide :: View of North Terrace.

in such position as he thought best. There were many difficulties in fixing the location of a new township in a broad flat country some miles from the sea, and Colonel Light had much opposition to encounter; but eventually Light selected the site of the new city and prepared the plan. The outstanding feature of the Adelaide plan is, of course, the belt of park lands surrounding the city. Whether this feature was due to Colonel Light or to Wakefield, it is difficult to say, but in view of the fact that many of the cities laid out by the New Zealand Land Co. were provided with this open "town belt," it is probably due to Wakefield. A note on Light's first plan, however, states: "The dark green round the town I proposed to the Resident Commissioner to be reserved as park grounds." The regular rectangular plan of the city itself, as prepared by Colonel Light, was largely due to the fact that some hundreds of colonists were clamouring for sites, and it was necessary to survey and set them out without delay. Probably a canvas town was erected immediately.

Each colonist was given one town site in Adelaide itself in addition to the farm land allotted to him

beyond the limits of the city. Altogether there were to be provided 1,000 town acres, a part of which were, however, at the port six miles away.

The survey and staking off of the town sections were commenced on the 11th January, 1837, and finished on the 10th March. On the 15th March a meeting took place to decide on a method for drawing lots for the town sections. The remaining town acres were then sold for the benefit of the colony.

The Central Square and four other open squares were planned almost exactly on the lines of Wm. Penn's original plan for Philadelphia, but on a broader scale. The plan of Adelaide is well worthy of study, and especially perhaps in view of the later development of the city.

The limited area of the original town was contained in a rectangle about 1 mile by 1½ mile, and any further growth of the city had to take place outside the line of the park lands. This was provided for by Colonel Light in the case of the first constructed suburb—North Adelaide—by an extension of the park lands to surround the suburb; but with later suburbs this ideal

Kensington Gardens, near Adelaide.

was discontinued. Outside the limit of the park lands several radiating roads were provided, running in diagonal directions, principal among which is the road leading north-west to Port Adelaide.

Colonel Light's plan recognised the importance of providing an open space within easy reach of every house, and with the increasing use of the older portion of the city for commercial purposes these open spaces, and particularly the park lands, will become of additional value to the inhabitants.

In common with all towns laid out with sites of lavish dimensions, there has been evident a disposition to "subdivide" the original blocks, and especially in the suburbs are to be found instances of narrow ways, not part of the original plan, but constructed to obtain a more intensive use of the available land.

The number of houses per acre is, of course, everywhere much smaller in Australia than in England. The general type of one-story bungalow building in itself involves that each house spreads over more than twice the ground a house of the same number of rooms would require in England. It is said that the

Customs House, Brisbane.

average number of houses per acre in Greater Melbourne is less than 3 per acre, and this can be well understood, but in spite of this there are districts where relative overcrowding occurs, and the fact speaks volumes that in Melbourne at the present time a Royal Commission is sitting to consider the question of the unsatisfactory housing conditions that undoubtedly in many places exist.

The multiplicity of municipalities, each entirely independent of the other, and the absence of control by a Government department similar to our Local Government Board, add considerably to the difficulties of efficient town planning.

The failure of the rectangular plan is very strongly marked wherever it occurs in towns built on undulating or hilly country.

In some of the suburbs of Brisbane, for instance, the road grades are almost as much as 1 in 3. This

Parliament House, Brisbane.

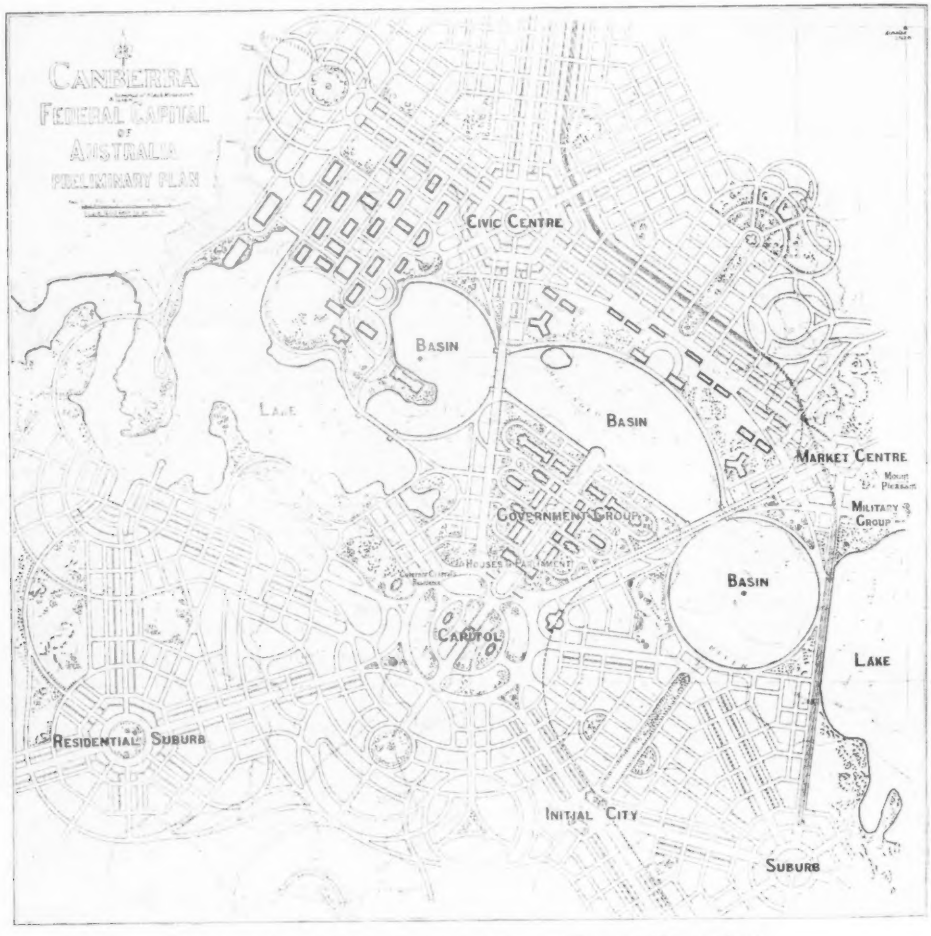
sort of road planning savours more of the estate agent than of the engineer, and the architect has hardly

even been thought of. Commanding sites, eminently suitable for an important public building, are ruled over in straight lines, and long straight rows of corrugated iron roofs struggling over hill and valley testify to the need for a more scientific as well as a more artistic mode of town development. In a brick building the waste in extra foundations is of course considerable, but in Queensland most of the houses are of wood and raised on wood posts well above the ground as a protection from the white ant. On each post is a projecting sheet of metal, like an inverted tea-tray, as an additional protection against these pests.

The older portion of Brisbane is on a more level site, and the Government buildings are well placed on the banks of the Brisbane River. The Parliament House and Customs House are both very effective buildings, and the newer Government buildings maintain the same high standard.

Many of the smaller towns of Australia on the rectangular block plan are admirable in the way in which they have been laid out. Albury and Bathurst in New South Wales, Ballarat in Victoria, and others are especially noteworthy in the foresight which the town authorities have shown in the acquirement of open spaces and tree planting. For a town of limited size there are very few objections and many conveniences in the rectangular plan, and one can well understand how this plan arose in practically every case where a township had to be established in a limited time. Many of the early settlements were planned within a rectangle a mile square, or in some cases a mile wide and slightly greater length.

The immense distances separating the various Australian Colonies kept them for well-nigh three generations as entirely separate States, each with its own laws and its own railway system. So far apart were



New Federal Capital of Australia: Revised Plan. W. Burley Griffin, Architect.

the States that no thought of linking them up could have prevailed, and the principal States each adopted their own railway gauge :

South Australia and Victoria, 5 ft. 0 in. gauge ;
New South Wales, 4 ft. 8½ in. gauge ;
Queensland, 3 ft. 6 in. gauge,

not to mention many other light railways of lesser gauge. This change of gauge even to-day necessitates a break of journey at the State borders, and it is not so many years since tariffs and custom houses separated these rival " countries."

With the inauguration of the Commonwealth of Australia and the coming of the Federal Government, however, steps were taken to lessen these inconveniences. Post offices and national defence are already a Federal concern, and the railways will in due course no doubt come under one administration.

From the town-planning point of view, however, the projected Federal Capital at Canberra is already a subject of world-wide interest. The design of Mr. Walter Burley Griffin, of Chicago, is a fine one, and it is to be hoped that it will be put into execution at an early date. Already large sums of money have been spent on water-works and other preliminaries, but so far little has been done on the site itself, and it is feared that the present difficult time will still further retard the proposal. The Federal territory is some 200 miles south-west of Sydney, and the site chosen for the new capital is an admirable one for the purpose. Set in a natural basin of hills, between which wanders the little river Molonglo, there are few finer sites anywhere. The present sparseness of water will, when the design is finally carried out, be exchanged for some miles of ornamental water in front of the city, and the public buildings are intended to be grouped, terrace above terrace, crowned by the Parliament building.

The revised design is illustrated on page 444.

Plan of portion of an Irrigation Township, laid out by the New South Wales Government.

Although little has at present been done to the new Capital, the various State Governments have many smaller undertakings in hand. The new townships recently laid out by the New South Wales Government at Leeton and Yanco in connection with the Murrumbidgee Irrigation Scheme, and the housing colony at Daceyville, are both interesting experiments which show how great is the interest taken in the subject, while already the magic term " Garden Suburb " has been adopted by estate owners in various localities.

NEW ZEALAND.

When we come to New Zealand we find the problem of laying out the early townships was dealt with on somewhat similar lines, but on very different sites to the Australian towns. With the exception of Invercargill and the flat plan on which the city of Christchurch is built, the majority of the towns are on

Dunedin : Town Belt.

steeply undulating sites, and it is remarkable that three out of the four great cities of New Zealand are laid out in regular lines, and still more remarkable that in most of the early settlements a " town belt " of continuous open land was reserved around the town.

Traces of this " town belt " of open land are still to be met with round New Plymouth and Christchurch ; and where it remains intact, as in the case of Dunedin, and to a large degree at Wellington, it forms a singularly attractive feature, and, from the natural and undulating character of the ground, superior even to the attractions of the famous " park lands " surrounding the city of Adelaide. There has, it is true, been a rooted antipathy to trees, especially perhaps to the " pinus insignis," but this objection is losing weight, and " Arbor Day " is becoming increasingly popular in the Dominion.

A view of a portion of the town belt at Dunedin, N.Z., will make this clear. Dunedin in many respects aims at rivalling Edinburgh, and practically every

street and suburb in the New Zealand town has its counterpart in the Scottish capital. Portobello, Corstorphine, Roslyn, are names that rise to one's mind.

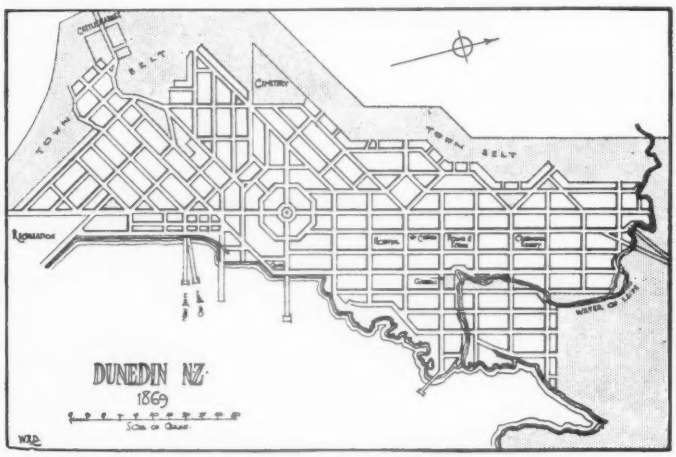
The rapid development of many colonial towns under this vigorous Scottish stock is especially noteworthy. A comparison, for instance, of Princes

Dunedin: Princes Street in 1860.

Dunedin: Princes Street to-day (taken from the same spot as the 1860 photo.).

Street, Dunedin, in 1860 with the same street to-day shows the march of time.

Invercargill, at the extreme south of New Zealand, is noted for its unusual width of streets, but the town, owing to its isolated position, has not grown to the same extent.



Dunedin, N.Z., laid out with "town belt" of public land surrounding the town.

From the view of Dee Street, the principal business street, it will be seen how excessive is this width for a town of limited population, and the keen winds from the Antarctic have every opportunity of making themselves felt in every part of the town. The cost of macadam and maintenance for such an extreme width is proving a very serious matter, and proposals are afoot for tree planting or otherwise utilising this wilderness of street width.

The characteristic wooden weatherboard buildings with corrugated iron roofs, which constitute the bulk of the residential districts on the outskirts of all New Zealand towns, are well shown in the general view of Invercargill on page 448. In most towns it is customary for the municipal authorities to prescribe a "brick area" in the centre or business portion of the town, but as a rule this is of very limited extent.

The general law as to street widths in New Zealand is that all new streets are required to be at least 66 feet wide, and that in each "township," no matter how small, there must be one principal street 99 feet in width. This latter requirement occasionally leads to considerable difficulties, as a township may in some cases consist of a few acres only, and there is apparently very little, if any, power to lay down where such street shall lead to or from. It is illegal to transfer land unless the streets are of the statutory width.

A very interesting experiment has been made in New Zealand (and also in Queensland) in attempting to limit the number of houses which may be crowded on to an acre. The restriction takes the form of a minimum size of lot—one-tenth of an acre—which may be bought or sold. It is probable, however, that this restriction was introduced more for convenience in land registry, as one finds numerous cases where houses are built to a greater density than this. The detached wooden cottage on its own quarter-acre section, however, still holds the field in popular favour.

A disadvantage in town development which has been much felt in New Zealand as well as in Canada and other growing dominions is that the railways have in nearly all cases taken the line of least resistance, and occupied the best position along the water front or seashore, and at such a level that the lines can only be crossed by occasional level crossings.

With the growth of the town communities these disadvantages are increasingly felt, and it would seem that the only way to deal efficiently with the problem is for the railway plan to form a definite part of the town plan. Even when the railways are in Government hands, as in New Zealand, the difficulty is continually felt, and it is evident that large schemes of reconstruction will eventually have to be faced. In many cases, however, development has not proceeded too far to allow alternative railway routes to be reserved for the time, not far distant, when they will be required. Several of the seaside resorts, such as New Plymouth and Timaru, are particularly handicapped by the railway along their sea front.

Town lands have, as we have seen, in many cases been reserved on a lavish scale for public purposes, and also for the provision of educational endowments, but there is evident a somewhat natural tendency to poach on these lands for other public purposes. In some cases, for instance, the town belt has been partly appropriated for a cemetery or a gaol, and in at least one case by a lunatic asylum.

The city of Christchurch, on the flat Canterbury plains, was laid out some 75 years ago with the customary square mile of town, half a mile each way from the Cathedral Square, and around this was a belt of town land which was intended to be reserved for public enjoyment. A few years later, however, the development of the town necessitated the construction of a railway tunnel through the neighbouring hills to the port of Lyttelton, and the whole of these town lands were sold, it is reported for some £20,000, to aid this purpose.

This is a very valuable illustration of the advantages to the town itself of some outside control over municipal affairs, such as is exercised by our own Local Government Board. The tunnel at Christchurch was undoubtedly a necessity for the progress of the town, but it was not good policy to sell the town lands.

The necessity for immediate funds to aid development is felt in many directions in every new undertaking, and once again the point is emphasised that the town plan to be really effective must include *all* the interests of the town.

The plan must also keep pace with the town itself. In the case of Christchurch, no sooner were the town lands built on than the growth spread still further afield, and the original rectangular plan was overstepped in all directions. It is curious, however, to note from the plan how once again the old bullock tracks in radiating directions, have grown to form the natural highways—even in the most regularly planned of towns.

In the North Island the vigorous cities of Wellington and Auckland are rapidly developing in every direction. In each, as in so many cases, the number of independent municipalities outside the city area, which has in the past been a stumbling block even for such cities as Melbourne and Sydney, is gradually being merged into the city proper, and the smaller

Invercargill, N.Z.: Dee Street (width 132 feet).

municipalities are in many cases gladly availing themselves of the opportunity of uniting in the administration of the cities of which they form part.

This sturdy independence of spirit has served its purpose in decentralising the governing authority, but, in all matters of town planning at any rate, it is becoming increasingly evident that the general lines of development must follow one harmonious plan.

The great difficulty of "Windy Wellington" is the steep mountain sides, which rise immediately at the back of the town, and the limited amount of level land available for development. Much has, however, been done by engineering skill to surmount these difficulties. The suburban trams, built on special tracks, tunnel through the hills on both sides of the town, and where gradients are too steep even for this a cable lift takes passengers to the higher levels.

The city of Auckland is surrounded by volcanic cones long since extinct, and deep "gullies" or valleys run through the town in direction roughly like the outspread fingers of one hand. The site is a difficult one to develop, and it is astonishing that so much has been done in three-quarters of a century. Auckland Harbour is second only to Sydney Harbour in natural beauty, and the ferry service, radiating in all directions, is in many ways similar to the Sydney model. In the lower part of the town is much reclaimed land, now nearly all occupied for business purposes. Very extensive docks and wharves have been constructed, and a scheme is projected for a harbour-side drive extending many miles along the harbour.

The development inland has, however, owing possibly to the multiplicity of authorities, been largely haphazard, and the natural "gullies" form a considerable obstacle to the design of new main roads, which are badly needed.

The city of Auckland has, however, in the recent erection of the Grafton Bridge—a reinforced concrete single-arch structure of fine proportions (although inadequate width)—shown what may be done in bridging these natural obstacles. These natural valleys are frequently of great depth, too steep for building purposes, and admirably adapted for the planting and preservation of the native New Zealand "bush" and tree-ferns, which are disappearing all too fast.

Invercargill, N.Z.: Typical view (from Water Tower looking down Leet Street).

A great advance has been made in New Zealand legislation by the introduction of a special Government department for the preservation of beautiful scenery, and "scenic reserves" are increasingly appreciated by the Dominion. An extension of the same principle is found in the preservation of the banks of all streams and rivers wherever possible, and the reservation from building of a strip of land at least a chain or half a chain in width. These limits, although insufficient to protect adequately the water frontage from spoliation, are a beginning in the right direction and an object lesson which might well be extended to the remainder of the Empire.

ARTISTS' WAR RELIEF EXHIBITION.

ONCE again the drawing-habit prevalent amongst architects has been turned to good account. Members may, perhaps, legitimately indulge in some satisfaction in respect of the exhibition now being held at the Institute Galleries, in aid of the Artists' War Relief Fund, arranged jointly by the Imperial Arts League and the Royal Institute. For not only do members of the Institute contribute in quite considerable proportion to the exhibits, but at the same time those of them who do show works take their place, with what credit may be, in the ranks of exhibitors alongside professed painters. In their discretion, the Hanging Committee, proving themselves no respecters of persons or professions, have seen to it that here architects and painters, as friendly rivals in a good cause, shall happily hang together on the very same walls.

Beginning with black-and-white work, on entering from Maddox Street we at once run up against old acquaintance: Mr. Raffles Davison, in pen-and-ink views of Worcester and other subjects; Sir Ernest George, in copper-plate impressions, printed in warm sepia, of the Ponte Vecchio, Florence, and the Rialto, Venice, so solid in their high-lights, so cavernous in their shadows; and Mr. Arnold Mitchell, represented by elevational drawings, in ink-wash, of the west fronts of Lichfield, Wells, and Rheims cathedrals. Sir Chas. Nicholson contributes a group of pen-studies, unwashed, from Bruges, Ghent, Antwerp, Malines, Aerschot, and Louvain; whilst Mr. Frank Emanuel, Mr. W. H. Ansell, Mr. Hanslip Fletcher, Mr. Geo. Vey, and Mr. Hilton Nash follow, each with a parallel group of subjects. Mr. Fletcher, too, shows us what can be made, by way of a picture, out of West Smithfield, with the entrance to St. Batholomew's Hospital in the foreground. Mr. Anthony Barker's work is marked by power and imagination, whilst Mr. W. Walcot's large plates possess a force and impressiveness due by no means merely to their superficial area. Mr. Gerald Horsley and Mr. Edward Warren meet us with architects' sketches, in pencil, from abroad, and Mr. Curtis Green with a whole series of fine pen-and-ink examples from at home and abroad. He also wields the etching needle to good purpose.

Coming to water-colour, we encounter it, clear and clean, in Mr. Guy Dawber's "Chatillon," and in Mr. Troyte Griffith's two canal views, Worcester, no less sound and painter-like, in their pleasing way. Between these latter Mr. Philip Norman's luminous little drawing, from Gomshall, falls in well as a centre-piece. Mr. E. W. Morgan proves himself expert at architectural subjects in his drawings from College Hill, E.C., Gloucester, and Oxford. Mr. H. S. East gives us welcome miniatures of country churches in Kent and Lincolnshire, whilst Sir Ernest George again shows his master-hand in two drawings, lightly touched with colour, of old houses, Exeter, and the doorway of St. Trophime, Arles. One thing we may say emphatically of these so far as they go: we feel that they are drawn.

On entering the main gallery one is confronted by an important landscape by Mr. Stephen Reid, flanked by drawings, no less telling in their individual way, by Mr. E. A. Rickards, Mr. Douglas Wells, Mr. Barker, and Mr. Adshead—all displaying mastery of the art-and-mystery of water-colour painting. On an adjacent screen a landscape by Mr. Geo. Clausen holds its own amid a group of strong drawings by Mr. Barker, Mr. Waring, Mr. Prentice, Mr. Niven, and Mr. Wigglesworth, these two latter still remaining pleasantly undivided even here. On the other face of this same screen Mr. Barker and Mr. Waring once more put out their strength, along with Mr. Douglas Wells and Mr. Cecil Brewer; whilst Mr. Matthew Hale's tender landscape reigns supreme amongst these.

Sir Aston Webb's Gateway at Bruges, Mr. Phené Spiers's Ruins of St. Cloud, and the late Alfred Waterhouse's Ponte St. Angelo, Rome, recall models of English water-colour art earlier in date than such as certain of their neighbouring exhibits owe allegiance to. A glance, by way of comparison, at Mr. Walcot's spirited impression, on a big scale, of the Palace of Justice, Brussels, will illustrate this point. But it is instructive, in the case of the two exhibits by Mr. Waterhouse, to mark the advance in his handling of colour from 1873 to 1885. Mr. Alfred Yeates has spent time to good purpose at Laon and in Dunkirk Harbour, and Mr. Mervyn Macartney in like manner has devoted leisure to outdoor work with the brush. Pictures by Mr. Edwin Bale and Mr. Alfred Parsons are well balanced on a screen containing also works by Sir Ernest George, Mr. Philip Norman, Mr. Napper, and Mr. Nutt. Mr. Joass is represented by a pair of sketches from Poole Harbour.

WALTER MILLARD [*A.*].

*** See report of the opening of the Exhibition by the Princess Louise, p. 452.

Books Received.

Memorials and Monuments Old and New: Two Hundred Subjects Chosen from Seven Centuries. By Lawrence Weaver, F.S.A. 8o. Lond. 1915. 12*s.* 6*d.* net. ["Country Life" Offices, 20 Tavistock Street, Covent Garden.]

The Medici Portfolios.—French Sculpture of the Thirteenth Century. Seventy-eight Examples of Masterpieces of Mediæval Art illustrating the Works at Reims, and showing their place in the History of Sculpture. With an Introduction and Notes by Arthur Gardner, M.A., F.S.A. 4o. Lond. 1915. 7*s.* 6*d.* net. [Philip Lee Warner, 7 Grafton Street, W.]

British Standard Specification for Portland Cement. No. 12. Revised March 1915. (Engineering Standards Committee.) 5*s.* net. [Crosby Lockwood & Son, 7 Stationers' Hall Court, E.C.]

Levelling and its General Application. By Thomas Holloway; revised by H. T. Tallack. Third Edition. 8o. Lond. 1914. Price 2*s.* 6*d.* net. [E. & F. N. Spon, 57 Haymarket, S.W.]

First Annual Report of the City Planning Board of the City of Boston for year ending 31 January 1915. 8o. Boston 1915. [City of Boston Printing Department.]

The Society for the Protection of Ancient Buildings: The Committee's Thirty-Eighth Annual Report, June 1915. [A. R. Powys, 20 Buckingham Street, Adelphi.]

9 CONDUIT STREET, LONDON, W., 31*st July* 1915.

CHRONICLE.

R.I.B.A. Record of Honour : Fourteenth List.

Killed in Action.

BOWIE, GEORGE PIGRUM [*Licentiate*], Captain, 5th Battalion, 1st Canadian Contingent. Killed in action on the 7th July. Aged thirty-four.

Captain Bowie was the son of Mr. and Mrs. Bowie, of Bernard Gardens, Wimbledon, and was educated at the United Westminster School. He entered the drawing office of Messrs. Holloway Brothers, afterwards becoming assistant to Mr. Edward Warren [*F.*]; subsequently he was for some time with Messrs. Sturgess & Barton in Boston, Mass., and afterwards did work in Oxford. In 1906 he joined Messrs. Parr & Fee, of Vancouver, subsequently acquiring a large and successful practice of his own in that city. Vancouver contains many examples of his work—notably the Lumbermen's Arch which he designed on the occasion of the visit of the Duke of Connaught and which has since been retained as a permanent memorial. As an old member of the Artists' Rifles, Captain Bowie was always proficient in arms. He joined the 1st Canadian Contingent immediately on the outbreak of war, and was gazetted Captain on the 24th May. It might be said that he died a martyr to his profession, for he was shot by a sniper when making a sketch of the trenches, work for which he had received high praise.

CHESTER, JAMES LESLIE, Lieut., 9th Liverpool Regiment. Killed in action, 6th July.

Lieut. Chester was the only son of Mr. J. T. Chester, first Mayor of Wallasey. On quitting Birkenhead School two years ago, he was articled to Mr. T. Taliesin Rees [*F.*], of Liverpool. He enlisted last August and received his commission in November.

DAVIES, HUGH FREDERIC, 2nd Lieut., 1/5th Cheshire Regiment. Killed in action in Flanders on 3rd July. Aged twenty-three.

Lieut. Davies, the youngest son of Mr. John Davies, of Chester, was an assistant architect in the service of the Liverpool Corporation. On the outbreak of war he enlisted as a private, and was granted a commission in October. He was specially mentioned for gallantry in the field in Sir John French's despatches of the 22nd June.

LAWSON, Captain F. H. [*Probationer*, 1906], 5th Battalion Northumberland Fusiliers. Killed in action on the 24th May. Aged twenty-eight.

Captain Lawson served his articles with Messrs. Newcombe & Newcombe, Architects, of Newcastle, and was afterwards in the office of Mr. A. Stockwell. Prior to joining the Fusiliers he was a trooper in the Yeomanry. He obtained his commission as Second Lieutenant in 1909, was promoted First Lieutenant in 1910 and Captain in 1911. His Colonel writes: "Captain Lawson was one of my best officers, thoroughly capable and reliable. He was a universal favourite, and his early call is much felt by all who knew him."

LAWRENCE, FRANK DEANE, Princess Patricia's Regt. Killed while on sentry duty in the trenches near Ypres, 27th April. Aged thirty-three.

Mr. Lawrence was the fourth son of the late Peter Lawrence, of Edinburgh, and was articled to Mr. George Washington Browne, R.S.A., some fifteen years ago. He went through part of the South African campaign, and eventually emigrated to Canada, when he was engaged for some time in railway surveys. He was among 140 picked men suddenly ordered to the Front shortly after his regiment's arrival in England, and was shot through the head while keeping a lookout over the parapet of the trench, dying almost immediately.

"While one cannot too deeply mourn the loss of such a brave soldier, there is a consolation in knowing that he did his duty fearlessly and well, and gave his life for the cause of Liberty and upbuilding of the Empire." (*Extract from Maj.-General Hughes's letter to the brother of the deceased.*)

Died of Wounds.

MUNDLE, A.: wounded at Ypres, and died in Bailleul Hospital, 4th May. Aged thirty-five.

Mr. Mundle, son of the late Ernest Mundle, was articled to Messrs. Davidson & Bendle, of Newcastle, and was afterwards assistant with Mr. A. Stockwell, Messrs. Mould & Tasker, and Mr. F. Rich, and chief architectural assistant to Mr. Holford, City Property Surveyor (all of Newcastle). He went to Quebec in 1912, and established himself as an architect at Melville, Sask. He came to England with the First Canadian Contingent.

Wounded and Missing.

NEWBERY, C. J. [*Student*], 7th Battalion Royal Fusiliers: reported wounded and missing.

Wounded.

ROBERTS, GEORGE ARTHUR [*Licentiate*], of Sydney, N.S.W., Major, First Brigade, Australian Field Force, reported wounded: writes that he is receiving every skilled attention, and hopes to be on duty again very soon.

ROSENTHAL, CHARLES [*A.*], of Sydney, N.S.W., Lieut-Colonel, commanding 3rd Field Artillery Brigade, Australian Division, wounded in Gallipoli, has recovered and resumed his command.

DIRCKS, LAWRENCE A. (son of the Librarian R.I.B.A.), Lieut., 18th London Regt.: wounded, but now recovered and returned to duty.

On War Service.

The following is the Fourteenth List of Members, Licentiates and Students enlisted for the War, the total to date being 44 Fellows, 315 Associates, 154 Licentiates, 205 Students, 2 Hon. Associates:—

FELLOWS.

Collinson, G. F.: Lt.-Col., 10th Bn. Suffolk Regt.
Halley, J. M. W.: 2nd Lieut., Royal Engineers.
Taylor, T. L.: 2nd Lieut., King's Own Scottish Borderers.

ASSOCIATES.

Bayley, B. C. E.: Royal Engineers.
Beckett, R. T.: Division Officer, Royal Engineers.
Beswick, A. E.: Lieut., 51st Bn. Canadian Expeditionary Force.
Bishop, H. Courtenay: 2nd Lieut., Pioneer Bn., 13th Gloucester Regt.
Butt, C. F.: 2nd Lieut., 5th Middlesex Regt.

Lieut. J. NIXON HORSFIELD,
Royal Naval Volunteer Reserve, *Associate*.
Died of wounds (see p. 452).

Captain GEORGE P. BOWIE,
5th Bn. 1st Canadian Contingent, *Licentiate*.
Killed in action (see p. 450).

Carmichael, D. A. : 2nd Lieut., 7th Bn. Royal Fusiliers.
Cowley, H. R. : 2nd Lieut., Hampshire (Fortress) R.E.
Culliford, L. A. : 2/1st London Field Co., R.E.
Dickeson, Colin A. : New Zealand Expeditionary Force.
Foster, R. C. : 2nd Lieut., Royal Engineers.
Harlock, Harold : R.N.A.S.
Jepson, H. Norman : 33rd Divnl. Signal Co., R.E.
Knapp-Fisher, A. B. : Acting Divn. Officer, R.E. Services attached 16th Bn. K.R.R.
Martin, M. R. : R.A.M.C. (T.).
Minor, Philip : 2nd Lieut., 5th Bn. 3rd Line, Durham L. I.
Owen, W. S. : Lieut. and acting Adjutant, 3/11th County of London Regt.
Rhodes, W. Craven : 22nd Bn. Royal Fusiliers.
Ridley, G. W. : Lieut., 4th Royal Sussex Regt.
Roberts, T. Leonard : Royal Engineers.
Rosenthal, Chas. : Lieut.-Col. commanding 3rd F.A. Brigade, Australian Division.
Slater, J. Alan : O.T.C.
Triscott, H., 39th Divnl. Signal Co., R.E.
Unwin, Henry : Royal Engineers.

LICENTIATES.

Bell, T. F. : Artists' Rifles.
Bentley, A. F. C. : 2nd Lieut., Royal Field Artillery.
Burgess, Horace : Royal Engineers.
Clemesha, F. Chapman : Lieut., Canadian A.S. Corps.
Cowman, A. : Royal Field Artillery.
Davies, G. H. : Sanitary Section, 53rd (Welsh Divn.).
Draper, W. B. Y. : Lieut., Royal Engineers.
Glennie, F. F. : 2/4 Royal Sussex Regt.
Haswell, F. : 2nd Lieut., Northumberland Fusiliers.
Hooper, F. B. : Royal Engineers.
Langham, Claude S. : 2/2nd S.W. Midland Brigade Field Ambulance, R.A.M.C. (T.).
Little, T. C. : 3rd South Midland Field Ambulance, R.A.M.C.
Sheppard, R. : R.A.M.C.
Tanner, Leslie : 2nd Lieut., Home Counties Signal Co., R.E.
Taylor, J. J. : Lieut., 11th Yorkshire Light Infantry.

STUDENTS.

Barlow, Smith : Army Service Corps.
Berry, Harold : 9th County of London, Queen Victoria Rifles.
Brinton, S. : Northumbrian Division R.E.
Brown, Frank C. : Royal Engineers.
Burleigh, Harold : O.T.C.
Cottingham, G. R. : 5th Bn. Royal West Kent Regt.
Daniel, T. Llewellyn : R.N.A.S.
Eaton, Alex. R. C. : 2nd Lieut., 9th Bn. Bedfordshire Regt.
Fiennes, Hon. L. C. : Royal Flying Corps.
Haile, Wilfred L. : North Somerset Yeomanry.
Hall, D. Carby : Capt., A.S.C.
Hall, W. B. : 2nd Lieut., Royal Fusiliers.
Higginson, Frank : 14th Bn. 1st Royal M. Regt., C.E.F.
Higginson, H. Scott : 14th Bn. 1st Royal M. Regt., C.E.F.
Hunt, Reginald : 4th Bn. Oxford and Bucks Light Infantry.
Larkin, H. E. A. : 13th Bn. County of London Regt.
Mackenzie, F. W. : 7th Bn. Middlesex Regt.
Mansfield, R. E. : Royal Engineers.
Martindale, C. J. F. : 21st Northumberland Divnl. Signal Co., R.E.
Mercer, John F. L. : Royal Engineers.
Ramsden, Eric : 2nd Lieut., 13th West Yorkshire Regt.
Reed, Wm. J. : R.N.A.S.
Rees, Frederick W. : 1st Glamorgan R.E.
Ridley, B. W. : Capt., 7th South Lancashire Regt.
Roberts, C. H. : 2nd Lieut., 1st Bn. York and Lancs Regt.
Shapley, A. E. : Lieut., 23rd Bn. Northumberland Fusiliers.
Shields, G. D. : Royal Engineers.
Smith, Arthur : Royal Engineers.
Soissons, Louis de : Lieut., A.S.C.
Wharf, H. F. : 10th Bn. East Yorks Regt.
White, Raymond C. : Royal Bucks Hussars.
Williamson, H. Rochead : Lieut., 1/1st City of Edinburgh R.E.
Wood, T. Spencer : 2/3rd South Midland Brigade, R.F.A.
Young, J. R. : Lieut., A.S.C.

Promotions.

Bennett, P. D. [*A.*], to Capt., 5th Royal Warwickshire Regt.
Brough, W. J. [*A.*], to 2nd Lieut., 9th Bn. Middlesex Regt.
Bull, J. W. [*A.*], to 2nd Lieut., 2nd Bn. East Lancs Regt.
Clarke, J. M. [*A.*], to 2nd Lieut., East Lancs Regt.
Cruickshank, D. E. [*A.*], to 2nd Lieut., 10th Bn. Border Regt.
Cubey, J. B. [*A.*], to Capt., 23rd Bn. Northumberland Fusiliers.
Dicken, Aldersey [*Licentiate*], to Sub-Lieut., R.N.V.R.

Dod, H. A. [*A.*], to Lieut., 17th Service Bn. King's Liverpool Regt.
Heal, A. Victor [*A.*], to 2nd Lieut., 6th London Brigade, R.F.A.
Masey, Cecil [*Licentiate*], to 2nd Lieut., Durham (Fortress) R.E.
Nott, George [*A.*], to 2nd Lieut., 3/1st North Midland Divnl. Cyclist Co.
Smithers, Alec. [*A.*], to 2nd Lieut., Hampshire (H.B.) R.G.A.
Walch, J. B. M. [*S.*], to 2nd Lieut., Royal West Surrey Regt.
Walter, R. A. [*A.*], to 2nd Lieut., 10th Bn. Norfolk Regt.
Wheeler, Major M. [*F.*], to Lieut.-Col., 4th (Reserve) Bn. Royal Berkshire Regt.

Lieut.-Colonel A. B. Hubback [*F.*], commanding the 20th Bn. London Regiment, who received recently such high commendation from the Brigadier-General of the 142nd Infantry Brigade [*see* p. 397], writes: "It is most gratifying to know that our doings are watched by those at home who know us. We are having a hard time, but the cause is a good one, and we shall not be very long now before the German turns his back on us. . . . It would break your heart to see the way the old churches and buildings are knocked to pieces, damaged, of course, beyond all repair, yet, strange to say, the crucifix in each churchyard remains untouched. . . . I am proud to be in command of such a fine lot of men."

Lieut. J. Nixon Horsfield, R.N.V.R.

As announced in the last issue, Lieut. J. Nixon Horsfield [*A.*], of the Royal Naval Volunteer Reserve, succumbed to wounds received while leading his men to the assault during the operations in Gallipoli. His Commanding Officer gives the following details of the affair in a letter to Mrs. Horsfield:

"Your husband died most gallantly; words cannot express the admiration we all feel for his conduct. On the night of 18th June we were advised to take a Turkish trench. The first attempt was unsuccessful, but the second, at 2.30 a.m. on the 19th, which was led by your husband, was successful and the trench was carried. Your husband was wounded in this assault—badly wounded in three places, in the arm, in the back, and in the chest. Yet in spite of his wounds he went on into the trench, and lay there, unable to move, encouraging his men the whole time. How he did it for four hours we cannot imagine. It was splendid. He got out of the trench at 7 a.m.—and I cannot think how he managed to do so—but did not leave the spot until his company was relieved. We got him on to a stretcher and carried him to the Field Ambulance Hospital, but I deeply regret to say he died there the same evening."

John Nixon Horsfield was the son and pupil of the late Fellow of the Institute of the same name. He was educated at the City of London School, and began his professional training in the Architectural School, King's College. Upon the termination of his articles he travelled in Italy, France and Belgium, and worked as assistant in his father's office. He then spent some time in the United States, assisting in the offices of some of the leading architects of New York. Returning to England he entered into partnership with his father, and carried on the practice with his brother after the father's death in 1907. He passed the Final Examination in 1906, and was elected Associate in the following year. A few years ago he went to Paris for a course of study at the Ecole des Beaux-Arts, working in the Atelier Duquesne, Rue Mazarine. Until the past two or three years he was a constant attendant at General Meetings, occasionally joining in debates on professional and domestic questions. He was a ready and fluent speaker—quaintly humorous sometimes, but there was always good sound sense in what he said. In various other ways he took part in the activities of the Institute, serving for two years (1911-13) on the Practice Committee, contributing to the JOURNAL, and competing for the Prizes and Studentships. He was never fortunate enough to carry off any of the latter, but his work invariably attracted notice, and was often favourably commented upon. His loss is deeply mourned by those who knew him intimately, for he possessed a very winning personality; sympathetic, generous, frank, and open as the day. He was thirty-two years of age, and had been married two years—"to me, two years of absolute happiness," writes his young widow.

Artists' War Relief Exhibition: Opening by the Princess Louise.

On another page of this issue will be found a contribution by Mr. Walter Millard [*A.*] describing the Exhibition now being held at the Institute for the benefit of painters and architects who are suffering from the effects of the War. The Exhibition, which has been arranged by the Imperial Arts League jointly with the R.I.B.A., was opened by H.R.H. the Princess Louise on Wednesday, July 28th.

The Princess, attended by Lady Victoria Russell, arrived at the Institute at 3 o'clock, and was received by a committee* of the two organising bodies headed by Mr. Ernest Newton, A.R.A., President of the Institute. Among the distinguished company present besides those mentioned were Lord Plymouth and Sir Wm. Lever, and many ladies.

Mr. ERNEST NEWTON, addressing the assembly in the Great Gallery, said: Before asking Her Royal Highness graciously to open this Exhibition will you allow me to state very briefly the objects we have had in view in organising it. Our main object, of course, is to sell as many pictures and sketches as possible, and those who still have room on their walls have now an excellent opportunity of acquiring fine works of art, and at the same time of materially assisting artists and adding to the War Funds of the Imperial Arts League and

* Representing the Imperial Arts League: Mr. Edwin Bale, R.I.; Mr. W. Robert Colton, A.R.A. (Chairman of the War Emergency Fund Committee of the Imperial Arts League); Mr. John Lavery, A.R.A.; Mr. J. Coutts Michie, A.R.S.A.; Mr. David Murray, R.A.; Sir Wm. Plender, F.C.A.; Mr. Arthur Rackham, R.W.S.; Mr. W. Reynolds-Stephens; Mr. Harold Speed; Mr. Arthur D. Rendall, Hon. Sec.
Representing the R.I.B.A.: Mr. Ernest Newton, A.R.A.; Mr. E. Guy Dawber; Mr. Gerald Horsley; Mr. Arthur Keen; Mr. H. H. Statham; Mr. Edward Warren, F.S.A.; Sir Aston Webb, K.C.V.O., C.B., R.A.
Stewards: Mr. L. Rome Guthrie; Mr. Herbert Shepherd; Mr. P. E. Webb; Mr. Leslie Wilkinson.

the Architects' Benevolent Society. It may be objected that this is not a good time, when we are exhorted to practise the most rigid economy, to appeal to the public to spend money on pictures; but in answer to that I would point out that money spent on pictures is money invested, and at good interest, too. The Imperial Arts League is not ordinarily an exhibiting body, and is only using its powerful organisation on the present occasion to assist painters whom the War has placed in temporary financial difficulties, and I need not remind you that such cases are, unfortunately, numerous. Architects are perhaps even more hardly hit than any other art workers. A buyer of pictures can to some extent help a painter to continue the practice of his art at a very modest outlay, but the employment of an architect is a much more serious affair. Many architects are, however, accomplished draughtsmen, water-colour painters or etchers, and their exhibits will show to the public a side of an architect's life with which it is not perhaps very familiar. In conclusion I should like to thank the Honorary Secretaries, Mr. Rendall and Mr. Redfern, and many members of the joint committee for the immense amount of work they have done in getting together this excellent Exhibition at very short notice. I will now beg your Royal Highness graciously to declare the Exhibition open.

Her Royal Highness PRINCESS LOUISE: I have great pleasure in opening this Exhibition, and I feel sure that all those who are interested in art and architecture will come and assist those who greatly need help. And I would urge them to come not only for this reason, but also because of the intrinsic value of the work to be seen here.

The Exhibition having been declared open—

The Right Hon. the EARL OF PLYMOUTH (Vice-President of the Imperial Arts League) said: It is now my pleasant duty very briefly to thank your Royal Highness for your kindness in so graciously consenting to open this Exhibition. We know how much your Royal Highness has been suffering of late, and we are deeply grateful that you should have made it possible to be present to-day to lend your gracious approbation to the work we are endeavouring to do for the benefit of those artists who are suffering so severely from the present condition of affairs. It was your Royal Highness's interest in all artistic work that led us to hope that you would be so kind as to come here, as you have done this afternoon. On behalf of the President of the Royal Institute of British Architects and of the Imperial Arts League, I beg you to accept our grateful thanks.

Mr. ROBERT COLTON, A.R.A. (Chairman of the Arts War Emergency Fund Committee): On behalf of the Imperial Arts League and the War Emergency Committee, I beg to second his Lordship's motion. I feel that we should welcome the Princess not only as a Representative of the Royal House, with the influence which attaches thereto, but also because Her Royal Highness has come here, with that mutual sympathy that artists have to one another, to enable us to aid the artists who are passing through such a difficult time. I have also to thank the President and Council of the Royal Institute of British Architects for their very kind loan of these galleries for the purpose of this Exhibition, and for the charming way in which they have aided us in every particular in the work of organisation. I should like to explain on behalf of the Imperial Arts League that the pictures here come under two categories: those that are directly exhibited by the artists whom we wish to benefit, and those presented by donors—pictures which, if they are sold, will go to the funds of the League so that more pictures can be bought with the proceeds. In this way we hope to aid artists in keeping their heads above water during this strenuous time. I need hardly point out that a vast number of really good artists can only just live decently in ordinary times, but under the present difficult conditions they cannot live at all without some such aid as we are now organising. I may say that we have many donors of money, to whom we wish to return our very sincere thanks. Moreover, we have had donations in another way, especially from a lady who has sent us a donation of £50 as the proceeds of some embroidery work. I feel sure all the ladies present will realise what it means, and the amount of work which it entails, to obtain a profit of £50 on embroidery; and I sincerely hope they will start the same sort of work, and send in their cheques for the amounts realised. I have now formally to second the vote of thanks to Her Royal Highness for coming here to-day.

The vote was carried by acclamation, and Her Royal Highness was then conducted round the Exhibition.

The Princess stayed for over an hour and a half looking at the exhibits, and was manifestly interested, especially in the architects' work. The general opinion is that a more interesting collection of architects' drawings has never before been brought together. The Committee earnestly hope that members will visit the Exhibition, and that they will do their best to persuade their friends, especially their moneyed friends, to do so too. It will remain open for several weeks, from 11 till 6 daily (Saturdays, 11 till 4).

The German Visitation: Sympathy with French Architects.

The following letter, signed by the President and Council of the Royal Institute, has been addressed to the President of the Société des Architectes diplômés par le Gouvernement, Paris:—

June, 1915.

SIR,—We, the members of the Council of the Royal Institute of British Architects, beg you to receive and convey to your colleagues of the Société des Architectes diplômés par le Gouvernement our profound sympathy with you, our confrères, and with the whole French nation on the wanton destruction by the

Germans of so many examples of French architecture, many of which, such as the Cathedral of Rheims, were treasured by the whole civilised world as representing the highest possible achievement of mediæval architecture.

It is impossible to express in terms of moderation the feelings with which not only British architects but the whole of our countrymen have received the news of the ruthless destruction of noble buildings which have hitherto escaped the ravages of time and the violence of war.

These acts of barbarism are in themselves another proof that the German aggression is in reality an attack upon the common civilisation of Europe and the knowledge of this fact has confirmed the British people in their determination to carry on the War, at whatever cost, until the fall of German militarism has gained for Europe some measure of security against so intolerable a menace to the peace and happiness of the world.—We are, Sir, Yours faithfully,

ERNEST NEWTON, *President R.I.B.A.*

[*Signatures of the various members of the Council follow.*]

A letter in the same terms and similarly signed was also sent to the President of the Société Centrale des Architectes Français.

The following replies have been received :

Société des Architectes diplômés par le Gouvernement, Paris : 22 *Juillet*, 1915.

À Monsieur le Président du "Royal Institute of British Architects,"—

MONSIEUR LE PRÉSIDENT,—Les membres du Conseil d'Administration de la Société des Architectes diplômés par le Gouvernement, sincèrement touchés de la grande sympathie que vous leur témoignez ainsi qu'à la nation française en présence des actes inqualifiables commis par les Allemands sur les beaux monuments de France, s'unissent pour vous envoyer la cordiale expression de leur profonde estime et de leur inaltérable amitié.

Nous restons convaincus, qu'en se retirant, les hordes barbares ne respecteront rien et détruiront les merveilles qui restent encore entre leurs mains, car il est impossible d'attendre un éclair de raison de ceux qui, proclamant que l'honneur est un vain mot, ordonnent l'anéantissement des chefs-d'œuvre pour venger leurs insuccès.

C'est pour cela qu'il importe de poursuivre sans faiblesse le but que nous nous sommes assigné, c'est-à-dire l'écrasement du militarisme allemand. Confiants dans l'issue du duel sanglant dans lequel nous avons été entrainés, nous lutterons jusqu'au bout pour la civilisation et le bonheur de l'humanité. Et les monuments que nous élèverons dans le calme de la paix célébreront la libération des peuples d'Europe et chanteront la victoire.

Croyez, Monsieur le Président, vous et les membres de votre honorable société, à l'expression de nos sentiments bien cordiaux. Le Président :

JACQUES HERMANT.

[*Signatures of the members of Council, &c., follow.*]

Société Centrale des Architectes.
8, *Rue Danton, Paris : le* 3 *Juillet*, 1915.

MONSIEUR LE PRÉSIDENT ET TRÈS HONORÉ CONFRÈRE,

Au nom du Bureau et du Conseil de la Société Centrale des Architectes, nous venons vous exprimer nos bien sincères remercîments pour le témoignage de confraternelle sympathie que vous nous avez adressé, au nom de l'Institut Royal des Architectes Britanniques, à l'occasion de la destruction systématique par les armées allemandes des monuments de notre France.

Le monde entier a été pénétré d'indignation en apprenant ces actes inqualifiables de vandalisme commis sur les plus précieux joyaux de notre architecture nationale et nous vous sommes particulièrement reconnaissants d'avoir eu la généreuse pensée de vous associer à la protestation véhémente et unanime de toute notre corporation.

Veuillez agréer, Monsieur le Président et très honoré confrère, l'assurance de nos sentiments de haute considération confraternelle.

Le Président de la Société,
Membre de l'Institut,
(Sgd.) LALOUX.

Federal Council of the Australian Institutes of Architects.

A Federal Council of the Australian Institutes of Architects has been formed by the New South Wales Institute, the Royal Victorian Institute, the Queensland Institute, the South Australian Institute, the West Australian Institute, and the Tasmanian Institute. The objects for which the Council was formed are to represent the profession in all matters of a Federal character, especially in dealings with the Federal Government, and to bring about uniformity in Australian practice. The Council held its first meeting from the 20th to the 24th of April last in Melbourne, when all the above Institutes were represented. The members of the Council for the current year are :

New South Wales.—Arthur W. Anderson, President I.A.N.S.W. ; Walter Newman, Vice-President I.A.N.S.W.

Victoria.—H. W. Tompkins, President R.V.I.A. ; E. A. Bates, Vice-President R.V.I.A.

Queensland.—C. W. Chambers, President Q.I.A. ; Charles McLay, F.Q.I.A.

South Australia.—H. E. Fuller, President S.A.I.A. ; C. W. Rutt, Vice-President S.A.I.A.

West Australia.—G. Sydney Jones, F.I.A.N.S.W. ; W. Kenwood, F.I.A.N.S.W.

Tasmania.—A. North, F.I.A.T. ; J. A. B. Koch, F.I.A.T.

Mr. Arthur W. Anderson is President of the Federal Council, and Mr. Walter Newman, Secretary and Treasurer.

University of London : School of Architecture.

In connection with the work of the Session 1914-15, the following awards have been made in the School of Architecture at University College :—

DEPARTMENT OF TOWN PLANNING.

Sir Wm. Lever Prizes in Town Planning.—Messrs. A. G. Wood, H. N. Fisher, L. H. Shattock.

Sir Wm. Lever Prizes in Architecture.—Messrs. H. N. Fisher, I. Reicher.

Town Planning : Certificate.—Mr. H. N. Fisher.

What constitutes a Professional "Day"?

The question having been raised as to the number of hours which should be considered to constitute a professional "day," as the term "day" is employed in the Schedule of Charges, the Council of the Institute is desirous of obtaining the opinion of members on the point, with the view of ascertaining whether it might be possible to lay down a definite ruling on the matter. Communications on the subject should be addressed to the Secretary.

Professional Conduct.

The following Resolution was passed by the Council at their meeting on the 21st June :—

> That in the opinion of the Council, the Royal Institute having adopted a Scale of Professional Charges, it becomes the duty of its members, when giving advice relating thereto, not to weaken the value of the Scale.

This Resolution will be added to the List of Resolutions on the subject of Professional Conduct printed in the KALENDAR at page 70.

Reinstatement of Members.

The Council have reinstated the following gentlemen as Associates of the Royal Institute :—

HAINES, HERBERT (Bedford).
SALMON, NATHAN THOMAS (Wokingham).

Architectural Competitions: Proposed Amendment of the R.I.B.A. Regulations.

The Special General Meeting summoned by the Council to consider an amendment of the Regulations for Architectural Competitions [KALENDAR, p. 476], was duly held on the 5th July, Mr. H. V. Lanchester, *Vice-President*, in the Chair.

The second paragraph of the Regulations reads: "Members of the Royal Institute of British Architects and Allied Societies do not compete excepting under conditions based on these Regulations," and a footnote states that "The Regulations are not intended to apply to small limited private competitions."

The alterations proposed are as follows :—

1. The second paragraph to read :—"Members of the Royal Institute of British Architects and of its Allied Societies are only permitted to take part in Competitions in accordance with these Regulations, which are intended to apply to all Competitions other than private Competitions instituted by private individuals or firms."

2. The footnote at the bottom of the first page to be omitted.

THE CHAIRMAN moved that the Regulations be altered as proposed.

MR. HERBERT A. WELCH [*A.*] seconded.

MR. W. GILBEE SCOTT [*F.*] asked for a definition of private competitions. Would a competition promoted by a church committee, for instance, be considered a public competition?

THE CHAIRMAN said he hardly thought so. A public competition would be one in which public money for the proposed building was raised by a compulsory levy under powers conferred by Act of Parliament. When the money was subscribed voluntarily it would be a private competition.

MR. SCOTT asked whether it would not be better to define the term so that country members particularly might distinctly understand what competitions were barred by the Institute Regulations. There had been a great deal of difficulty and trouble on various occasions, and members had been expelled for not conforming to the Regulations. It could do no harm to make it quite clear as to what the Institute considered public competitions and what it considered private ones. The Chairman's definition was a good one: would it not be well to embody it in the Regulations?

MR. WM. WOODWARD [*F.*]: Assume that a large firm, a company-firm in Regent Street for instance, invited twelve architects to enter into a competition for the rebuilding of their premises: would the Regulations apply to that competition?

MR. FREDERIC R. FARROW [*F.*]: A better distinction would be between "open" competitions and "limited" competitions. What the Council probably had in their minds in bringing forward the Resolution in this form was that competitions which were limited to a certain number of invited architects were not bound by the Regulations. Those open to the profession generally would come under the Regulations.

THE CHAIRMAN: Hitherto it has been the practice to look upon limited competitions as being outside the disciplinary powers of the Institute.

MR. E. H. WOODCOCK [*A.*]: It seems odd to restrict the Regulations to competitions involving the expenditure of public money. A competition may be advertised and unlimited, and thus be a public competition in that sense, while private funds only are to be used, as might be the case of a church committee, or other similar body. Again, the competition might be limited to selected architects when public money was to be utilised. The Regulations should govern members of the Institute and the conduct of competitions in all cases.

THE CHAIRMAN: Let me try to clear up that point. If a competition is open to any architect to compete, the Institute considers itself empowered to deal with it. But if it is a limited competition—limited to a specified number of architects, or architects in a specified district, or specified by name—the Institute has not hitherto considered itself justified in intervening, whether the conditions were considered proper or otherwise. The effect of this alteration would be to empower the Institute to exercise supervision over competitions instituted by public bodies, but limited by invitation or other means to a specified number of architects.

MR. H. W. WILLS [*F.*] opposed the resolution. He did so, he said, with absolute consistency, because although he had been on the Competitions Committee many times when it had been discussed, he had always declared his objection to the proposal. He regarded it as an unreasonable interference with private liberty and judgment. In the case of a limited competition, the competitor had full information to enable him to make a competent decision as to whether the conditions were satisfactory. In a competition of a public character, where there might be anything from 30 to 150 designs sent in, everyone agreed that there should be an assessor, and promoters were bound by the Institute Regulations to have one. But a limited competition was on an entirely different footing. The competitor, for instance, might know the people who had instituted the competition; he might know, in the case of a school committee, that they possessed special knowledge on the subject, and he might have every confidence in their ability to come to a right conclusion. In the case of an ordinary public body the competitor might know that the invitation was intended as a compliment to him, and refusal to compete on the terms offered might be regarded as something like an insult. Or such a case as the following sometimes occurred. A small public body felt that they would like to give the work to one or two architects residing in their locality. They did not like to make a direct choice themselves; they therefore asked two men, either of whom they would like to have, to send them in a sketch-design. Supposing the invited candidates told them they could not compete unless an assessor were appointed, they would probably make a direct appoint-

ment of someone else. If, in response to the suggestion, they appointed an assessor, they would probably say, "As we have to appoint an assessor, we may as well ask everybody to compete." In that way those two men might lose the advantage of their connection with a certain locality which had been built up slowly in the course of years. He had known many limited competitions in which he had been instrumental in getting assessors appointed; he had known others in which the public bodies concerned would not have appointed an assessor in response to any pressure which might have been put upon them. He thought it might be left to the men invited in a limited competition to exercise their own judgment; the effect of laying down rules for them would not react to the good of the Institute, or of the profession generally.

Mr. Maurice B. Adams [*F.*] said he could not see the difference between the paragraph amended as proposed and as it already existed. He was at variance with Mr. Wills, for in small competitions it was more necessary than ever to have an independent party to call in and advise the promoters. The job might very likely be intended for somebody in particular and the competition be only a blind, the persons invited to take part in it never standing the slightest chance. The difficulty about asking the promoters to employ an assessor could be obviated at once if it were understood that in such cases the assessor would charge only a nominal fee. It had been stated over and over again at the Institute that assessors should be willing in small competitions to assess the work for a small sum. Only the other day Sir Aston Webb acted as honorary assessor in a small competition for the Lifford village hall at Broadway. The plans were sent to him and he was able to decide, probably in a very little while, in favour of a design by Mr. Prentice. If architects, when invited to join in a competition of this kind, said at once that they would be pleased to prepare a design, but that it would be better for all parties that an assessor should be appointed, and assured the promoters that only a nominal fee would be charged, then, in nine cases out of ten, he thought the promoters would agree; for it was to the advantage of everybody that the best plans should be chosen. He was strongly of opinion that in these small competitions there was more dubious business going on than one cared to mention. When it was a big job, like the Stepney Municipal Buildings, with 170 designs, no individual stood much chance of exercising any influence, even if he should wish to do so. But even after the Chairman's explanation he could not quite see the difference between the existing clause and the proposed new one, or why the matter should have now been brought forward at all. What was the difficulty? In a footnote to the Regulations it said: "The Regulations are not intended to apply to small limited private competitions," but that footnote was proposed to be eliminated, and incorporated into the second paragraph. It meant precisely the same thing, unless they were going to define a little more accurately, as the Chairman had done, what was a private competition by alluding to public moneys. A church committee dealt with public money, just as much as a municipal body did. They had to get the money out of the public by contributions and subscriptions. The essential thing was to ensure that architects were fairly dealt with; and he could not help thinking that in limited competitions it was more desirable even than in public ones that some sort of independent advice should be brought in, so that some gentleman who had all along expected to get a particular job did not necessarily get it.

Mr. Woodward said he was led to assume another case by what had fallen from Mr. Maurice Adams. It concerned the words "expenditure of public money." Assume that His Majesty's Office of Works invited twelve architects to compete for a certain job. Did the Institute say that in that case its Regulations were, or were not, to apply? It was not only a question of fairness in the result of the competition, but of conforming to the other Rules and Regulations, as regards commission for example, which applied to the Institute.

Mr. John E. Newberry [*A.*] said that from his point of view, particularly in church work, he should oppose the motion. It was frequently found that committees desired to have a small competition, but they were seldom willing to have an assessor. He remembered a case in which the architects who had been invited to compete—there were only three or four altogether—asked the Institute to appoint an assessor. The member appointed agreed to act, but said he would charge the full fee. Church competitions ought certainly to be taken out of the definition.

The Chairman: Not necessarily church competitions, but competitions which involve the expenditure of privately collected funds.

Mr. A. R. Jemmett [*F.*] said there seemed to be a slight misunderstanding on the part of the opposition. The fact that an assessor was compulsory would not prevent any man using the local reputation which he had laboriously built up to get himself appointed into the competition. But having got into the competition, he surely would not wish to offend professional etiquette by using his influence to the detriment of his colleagues who were competing. Therefore there could be no difficulty to an honourable man in the direction that the opposers seemed to think. With regard to the definition of what was public and what was private, it seemed to him to be wide enough as it stood—namely, all competitions other than those for private firms. It covered churches and everything except private firms. It was, he thought, a very clear definition, though the Meeting might not agree with it. When a man is acting as trustee for publicly collected money, it is, in essence, public money. If in a church competition there were some maladministration of funds, the newspapers would take up the matter as a public affair and the offender would be sent to jail. If there was to be an amendment, he would suggest one that would make the Regulations apply to all competitions, private firms and all. He agreed with Mr. Adams that it was in small competitions that the Institute Regulations were most required.

Mr. Gillbee Scott: Should we not be going a little too far if we try to rope in all these other matters, competitions which may be promoted by church committees, &c., with money which is not, properly speaking, public money, and where the definition would be disputed in numerous quarters.

The Chairman: Mr. Jemmett, I think rightly, corrects me. "Competitions other than private Competitions instituted by private individuals or firms" seems to imply that a body of trustees having control of any moneys subscribed or otherwise gathered together are excluded from our exception. So I think Mr. Jemmett is in order in correcting me on my definition. The matter was very fully gone into by the Competitions Committee, and that was the conclusion to which they arrived as to what the exception should be; that is only an expression of their view, which I think is reasonable.

Mr. Scott: Should we not agree to a definition? There is a difference of opinion, and it ought not to be left to individual members to decide for themselves whether a competition is public or private. Some of these questions are clearly open to discussion.

The Chairman: It is open to anyone to-night to suggest revision of the phraseology of this paragraph. If it is thought to be too comprehensive, or not comprehensive enough, I am prepared to receive amendments.

Mr. Scott: My suggestion is that it should be "buildings paid for by public funds." I second Mr. Jemmett's suggestion that all competitions be included.

The Chairman: That is, that the paragraph should end with the word "competitions," omitting "other than private competitions instituted by private individuals or firms."

Mr. Jemmett: My idea was that it should apply to all competitions, and I accept any wording which will give effect to that.

Mr. Maurice Adams said he did not think they could carry that through. He was rather inclined now to be satisfied with the Chairman's definition. The draft said "Competitions instituted by private individuals or firms." That was the best way to leave it, although he entirely agreed that in all competitions it would be better to have an independent assessor, if they could get one appointed. But he did not think the Institute could insist on an assessor in private concerns. If one of the architects invited to take part in a

private competition could say that the Institute was prepared to nominate a gentleman to act as assessor, and that he would serve for a nominal fee, that would be an enormous gain to architects as a body. They only wanted what was right. Sometimes it was depressing enough to see what publicly appointed assessors would do. But, with all these disadvantages, it was far better to have an assessor than not. He thought it would be very unwise to eliminate what the Competitions Committee had proposed. This meeting he began to see was called in consequence of discussions which had taken place on the Competitions Committee, and he hoped Mr. Wills would see his way to withdraw his opposition. He was sure that Mr. Wills was only anxious to arrive at the same conclusions as those which he (the speaker) had in view. The new regulation said "instituted by private individuals or firms." Sometimes such firms anticipated putting up very large buildings. For instance, Messrs. Peter Robinson's premises in Oxford Street were to be rebuilt, and a "private" competition had been held for that very important building, but the Institute could hardly have taken upon itself to write and suggest to the promoters that they must have an assessor. No doubt in this case the best conclusion had been arrived at, seeing that a highly esteemed member of the Institute and the A.A. had been fortunate enough to secure the commission. The Competitions Committee had been very judicious, it was perfectly plain there was really much difference between the two clauses. A church committee, or a parish-room committee, spending money subscribed by the public could not, he supposed, be construed into "private individuals" or "firms"; therefore it was a wholesome change, and he agreed that the proposed alteration should be made.

PROFESSOR S. D. ADSHEAD [*F.*] supported Mr. Adams. It would be going rather far, he said, to attempt to include competitions of every kind. There seemed, however, a little uncertainty in the reading of that paragraph, especially in regard to church and school work. There would be some uncertainty as to whether the paragraph was intended to apply to that class of buildings, because it was difficult to say whether they were to be provided for out of private moneys or not. He hoped Mr. Wills would withdraw his opposition, because, assuming competitions such as he referred to, it was clear that the promoters must conform to the Institute Regulations and appoint an assessor; and it would be an inducement to do so rather than decide the question themselves. They could not afford to lose the opportunity of making a selection from some half-dozen designs, and they would appoint an assessor and pay his fee; all the conditions which Mr. Wills looked forward to would be obtained. If an amendment were to be moved he would suggest it might be strengthened by altering the last line. Instead of "other than private Competitions instituted by private individuals or firms," he proposed it should read: "private competitions instituted by individuals or firms representing private interests." If he were in order he would move that amendment.

MR. HORACE CURTIT [*A.*]: On a point of order, should not the first amendment be taken first?

MR. JEMMETT: I would like mine put to the meeting.

MR. WILLS: Would it not save time to count the number of members present? I do not think there are forty,* and we are not likely to have any more at this hour.

MR. WOODWARD: It is a pity, after we have discussed the matter so far, to have to resort to a count. I take it that when we commenced these proceedings the meeting was in order.

THE SECRETARY, replying to the Chairman: It is in order to demand a count at any time.

MR. WILLS: My feeling is that, sooner or later, this question will crop up again, and I believe that whatever this meeting to-night passes, in a full meeting you will get that result negatived.

MR. MAURICE ADAMS: A count having been demanded it must be acceded to; it would be out of order to go on. Moreover, in a question like this, which is of a rather momentous character, although it has reduced itself to one of phraseology, and at this late stage of the session, I do not think, the vote having been challenged by Mr. Wills, that we can reasonably go on.

On the direction of the Chairman a count was taken, and it was reported that only 33 members were present. The Chairman thereupon ruled that the discussion could not continue, and closed the meeting.

* By-law 67 requires a quorum of "at least forty members" when a professional question is to be voted upon.

CORRESPONDENCE.

Banks and the Building Act.

15 *Bishopsgate, E.C., 19th July* 1915.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—It will interest bank architects in London to know that I have succeeded, on application, in getting the following reply from the London County Council:

"That the Council in the exercise of its powers under Section 207 of the London Building Act, 1894, do consent to alterations at —— Road, Brixton, without complying with the provisions of Section 74 of the said Act, as shown on the plans submitted with the application."

Certain conditions follow as to doors, &c., which would vary in every case.

I should add that the premises were to be wholly occupied by the bank as office and residence—no part was to be let off. That would, of course, be quite another story, and introduce an entirely different set of conditions.—Yours faithfully,

C. H. BRODIE [*F.*].

Alien Enemy Members.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—The letter of Mr. W. E. Vernon Crompton in your issue of 26th June cannot be permitted to pass without comment.

When the Institute found itself unable to expel its alien enemy members many of us were grievously disappointed. A certain sense of relief has now been afforded by the decision to delete their names from the KALENDAR. Let it be remembered that the R.I.B.A. in electing these gentlemen as Hon. Corresponding Members conferred upon them an honour. Individuals compose a nation and make the nation what it is, and these alien enemy members are individuals assisting to compose nations which have demonstrated to the world their inability to maintain any honours except those of their own peculiar brand. It is unthinkable that we, a learned Society holding our Charter direct from His Majesty, should tolerate association, however remote, with the enemies of our King and country.

Mr. Crompton argues that the relationship, so far as we as a Society are concerned, "is personal, not national; individual, not representative"; and he talks about a "fair trial." The former argument is granted. This life-and-death struggle is very "per-

sonal," for most of us have loved ones engaged in fighting the enemy. As to giving our enemies a fair trial, Germany's trial at any rate has already taken place, and she stands condemned before the world. The "Court of Justice" has been Belgium. It is useless to argue that one or two of these alien enemies may protest. They are all tarred with the same brush, and if we wish as a nation to keep clean and wholesome we must avoid in the future all things Austro-German as we would avoid the plague. Our action is neither poor nor ungenerous. It is just and right, and I am confident it has the support of the majority of our members.—Faithfully yours,

G. Scott Cockrill [*A.*].

Charles Edward Mallows; Joseph Arthur Reeve.

Mr. Cross's appreciative notice of our friend Charles Edward Mallows prompts me to add a word in accord. To my thinking, and I feel sure I am not alone in this experience, "magnetic" just applies to his personality, and affords a hint of the sunny brightness and energy that seemed always to emanate from him. Throughout the wide circle of his friends the recollection of this sunny quality in Mallows will assuredly remain undimmed.

It was his brilliant draughtsmanship that early distinguished him amongst architects of his day; but, as Mr. Cross observes, he was later on to develop powers of design of far deeper import, whilst none the less brilliant in their way. Of him as a good friend and as a good architect, I will only say now, in all sincerity, "He did his bit."

Mr. Wilsdon's notice of my old friend, J. A. Reeve, carries me back to the days when he was engaged on the painstaking survey which he made of the Fountains Abbey ruins, commissioned by the late Marquis of Ripon; for, then it was to him that I owed my first real lesson in reading an old building from the structure itself. Leading me on from the investigation of one elementary fact after another, such, for instance, as the hang of doors in their openings and the levels of floors, noting in which jamb the hooks were held and by what means each floor had been carried, incidentally he initiated me into fundamental points as well, such as the prevailing system of setting-out the work by bay-units, of which the spacing of voids and supports gave proof; and so, at length I left the place with a vision of something beyond the bare ruin, with some dim notion—vague enough, no doubt, raw beginner as I was—of the building in occupation by those for whom it had been devised.

It was several years afterwards that Reeve joined with others of us in forming a small circle of twelve members, to meet from time to time, an Architects' Round Table. I may safely assert that the nine survivors of this little band will ever bear in pleasant remembrance their happy association with Joseph Arthur Reeve. Walter Millard [*A.*].

THE EXAMINATIONS.

Preliminary.

The Preliminary Examination, qualifying for registration as Probationer R.I.B.A., was held in London, Bristol, and Manchester on the 8th and 9th June. Of the 80 candidates admitted, 36 were exempted from sitting, and the remaining 44 examined, with the following results:—

Centre.	Examined.	Passed.	Relegated.
London . . .	27	18	9
Bristol . . .	8	5	3
Manchester . .	9	5	4
	44	28	16

The passed and exempted candidates—numbering together 64—are as follow:—

Aitchison: Henry Maynard, 4 Buxton Road, Brighton.
Allison: Frederick William Harforth, 36 Harehills Avenue, Chapeltown Road, Leeds.
Anderson: George, St. Giles' House, Norwich.
Atchley: Max Heriot Nevil Cuthbert, 23 St. John's Road, Clifton, Bristol.
Ayers: William Cecil, 77 Ryan Street, W. Bowling, Bradford.
Barber: Norman Arthur, Vicarage Avenue, Derby.
Bateman: John Ambrose, 56 Constantine Road, Hampstead.
Bennett: Harvey Ernest, 5 Douro Villas, Cheltenham.
Benson: Christopher Augustus, "Cartlett," 47 Pentre Street, Grangetown, Cardiff.
Booth: Harry Ernest, 29 Sydney Street, Brighton.
Brown: Charles Robert, 2 Provident Place, Colchester.
Burkitt: Cecil, 3 Westbourne Road, Barnsbury, N.
Byrom: Richard, 223 Tottington Road, Elton, Bury, Lancs.
Chaudhuri: Arya Kumar, "Laleham," Clarence Road, Clapham Park, S.W.
Cross: Walter Edward, 132 Richmond Road, Dalston, N.E.
Davies: David Owen Harris, 81 Calabria Road, Highbury, N.
Evans: Leslie Maurice, 21 Forster St., Ashted, Birmingham.
Fieldsend: Henry, Mason's Arms, Ackworth, Pontefract.
Fisher: Nancy Cooper, Kirk Villa, Church Row, South Ascot.
Goldthorp: Alfred Reginald, 30 King Cross, Halifax, Yorks.
Green: Allan, 3 Denby Mount, Oakworth, near Keighley.
Hardy: Ernest Harold, 21 Belle Vue Road, Wandsworth Common, S.W.
Harris: Samuel George Stanley, "Mons," Constitution Hill Road, Parkstone, Dorset.
Harvey: James Macgregor, 8 Beaumont Gate, Dowanhill, Glasgow.
Haywood: Algar Arthur Newton, 15 Farm St., Mayfair, W.
Holliday: Albert Clifford, Parkfield, Gildersome, Leeds.
Hollingsworth: Christopher Raymond, Manor House Offices, Barnsley.
Honeyman: James Maclaren, H.M. Office of Works, 3 Parliament Square, Edinburgh.
Hughes: Eleanor Katherine Dorothy, Beaufort, Hengist Road, Bournemouth.
Jepson: Reginald, Ireton House, Rose Hill Street, Derby.
Jones: Colin Lancelot, Oakfields, Cwmbran, Newport, Mon.
Kelly: Stephen Stanislaus, Walmer, Sutton, co. Dublin.
Lawrence: Fredk. Orchard, 164A Aigburth Road, Liverpool.
Lawrence: Henry Matthew, 22 Marmion Street, Tamworth.
Lawson: Edwin Maddison, 2 Ivanhoe Terrace, Chester-le-Street.
Lewis: Ernest Wamsley, "Kia-Ora," Icen Road, Weymouth.
Marshall: Thomas Leslie, "Oban," Hills Road, Cambridge.
Medd: Henry Alexander Nesbitt, The Vineyard, Abingdon.
Morgan: William Thomas, Queen's Hotel, Castle Street, Maesteg, Glam.
Morrow: Leslie George, "Brent Lodge," Berkhamstead.
Napier: James, c/o J. Burnet & Son, 239 St. Vincent Street, Glasgow.
Noble: Charles, 9 Parsonage Road, Withington, Manchester

PAPWORTH: Henry William, 5 Gall Road, March, Cambs.
PEEVER: George Henry William, "Caradoc," Percy Street, Greenfields, Shrewsbury.
PITE: Horace Victor Walter, 13 Elm Grove Road, Ealing.
ROGERS: George Reynold Hubert, 17 Brynmill Crescent, Swansea.
ROSE: Kenneth Woodhouse, The Mount, Halesowen.
SCHOFIELD: Herbert Walter, 20 Haldane Road, Fulham, S.W.
SHAW: Robert Philip, 26 North Bridge Street, Bathgate, Linlithgowshire.
SLATER: Cyril, Municipal Offices, Babington Lane, Derby.
SOMERSET: Douglas Forbes, Public Works Dept., Suva, Fiji.
STEVENSON: James, Gateside, Ayr, N.B.
STRIBLING: Herbert James, 80 High Street, Slough, Bucks.
TANNER: Charles Puget, 110 St. George's Terrace, Jesmond, Newcastle-on-Tyne.
TAYLOR: George Swan, 40 Balsusney Road, Kirkcaldy, N.B.
TREHARNE: Abraham, 13 Shelone Terrace, Briton Ferry.
VINE: Christian Courtenay, Park House, Exeter.
WADDICAR: Arnold, Laburnham House, Pool Street, Bolton.
WARD: Frank Vaughan, P.W.D., Suva, Fiji.
WARD: Victor Ernest, "Seacroft," Westcross, Swansea.
WESTGARTH: Silas, "Allansford," Cathedral Road, Cardiff.
WHITE: Francis James, Bannadon, West Avenue, Exeter.
WILLIAMS: Alun, "Brynheulog," Ogmore Vale, Glam.
YARDLEY: James Howard, Rathmore, Stourbridge.

Intermediate.

The Intermediate Examination, qualifying for registration as Student R.I.B.A., was held in London, Bristol, and Manchester from the 4th to the 11th June. Twenty-one candidates entered, with the following results :—

Centre	Examined.	Passed.	Relegated.
London	13	5	8
Bristol	3	2	1
Manchester	5	2	3
	21	9	12

The passed candidates are as follow, the names being given in order of merit :—

P = Probationer.

PHILP: Arthur Thomas [*P.* 1913]; 34 Alderney Street, S.W.
FRANCIS: Bernard Thomas [*P.* 1912]; "Michigan," Watering Hill, St. Austell, Cornwall.
JOHNSON: Henry Andrew [*P.* 1911]; The Vicarage, Great Harwood, Blackburn.
WARWICK: James Guy [*P.* 1912]; 103 Park Road, Peterborough.
TODD: Harold Edgar [*P.* 1912]; Hart's Cottage, Almondsbury, near Bristol.
BANNISTER: Harry [*P.* 1914]; 65 Edith Grove, Fulham Road, S.W.
WINEBAUM: Goodman George [*P.* 1911]; 13 "Shiplake," Calvert Avenue, Bethnal Green, N.E.
METCALFE: Harry [*P.* 1913]; 173 Shear Brow, Blackburn.
EMES: James Albert [*P.* 1905]; 14 Nightingale Square, Wandsworth Common, S.W.

The number of failures among the relegated candidates was as follows :—

A. Principal Styles and General History of Architecture	1
B1. Simple Applied Construction	8
B2. Theoretical Construction	8
C1. Historical Architecture :	
(*a*) Greek and Roman	2
(*b*) Byzantine and Romanesque	—
(*c*) French and English Gothic	—
(*d*) Italian, French, and English Renaissance	—
C2. Mathematics and Mechanics	1
C3. Design	5

Exemptions from the Intermediate.

The following Probationers, having produced satisfactory evidence of their training and qualifications, were exempted from sitting for the Intermediate Examination, and have been registered as Students :

DEY: Birendra Nath [*P.* 1913]; 36 Otago Street, Glasgow. [Government C.E. College, Sibpur.]
DHAMA: Bhanwar Lall [*P.* 1913]; Consulting Architect's Office, Bombay. [University of Allahabad.]
FORD: Thomas Francis [*P.* 1912]; 36 Hanover Park, S.E.
GOURLAY: William [*P.* 1913]; 2 Balmoral Terrace, Queen's Park, Glasgow. [Glasgow School of Architecture.]
HARDY: Thomas Charles [*P.* 1913]; 15 Carmichael Place, Langside, Glasgow. [Glasgow School of Architecture.]
HONEYMAN: James Maclaren [*P.* 1915]; H.M. Office of Works, 3 Parliament Square, Edinburgh. [Glasgow School of Architecture.]
LAWRENCE: Frederick Orchard [*P.* 1915]; 164A Aigburth Road, Liverpool. [Liverpool University.]
LOUY: Ethel [*P.* 1913]; 11 Ladbroke Terrace, W. [King's College.]
NAPIER: James [*P.* 1915]; c/o J. Burnet & Son, 239 St. Vincent Street, Glasgow. [Glasgow School of Architecture.]
SHAW: Robert Philip [*P.* 1915]; 26 North Bridge Street, Bathgate, Linlithgowshire. [Edinburgh College of Art and Heriot Watt College.]

In accordance with the special concession granted by the Council to Probationers on military service who are candidates for the Intermediate Examination and whose Testimonies of Study have been approved, the following were also exempted :—

BARLOW: Smith [*P.* 1911]; "A" Company, Army Service Corps, Aldershot.
BERRY: Harold [*P.* 1910]; "Knebworth," Station Road, New Barnet. (Queen Victoria Rifles.)
BURLEIGH, Harold [*P.* 1911]; 7 Priory Road, West Hill, Hastings. (University of London O.T.C.)
DANIEL: Thomas Llewellyn [*P.* 1909]; Bryn Dovey, 37 Cranbrook Park, Ilford. (Royal Naval Air Service.)
EATON: Alexander Robert Charles [*P.* 1904]; 203 Neville Road, Forest Gate, E. (Bedfordshire Regiment.)
HALL: Daniel Carby [*P.* 1911]; Prudential Buildings, Leeds. (Army Service Corps.)
HALL: Herbert James [*P.* 1913]; 104 Cornerswell Road, Penarth, S. Wales. (Glamorgan Yeomanry.)
HALL: William Basil [*P.* 1909]; 33 Carlingford Road, Hampstead, N.W. (Royal Fusiliers.)
HOPE: William [*P.* 1908]; 37 Beverley Terrace, Cullercoats, Northumberland. (St. John's Ambulance Brigade.)
HUNT: Reginald [*P.* 1911]; The Homestead, Sunningwell Road, Oxford. (Oxford and Bucks Light Infantry.)
JARVIS: Harold Edgar [*P.* 1911]; 62 Blacker Road, Birkby, Huddersfield.
LARKIN: Horatio Edward Arthur [*P.* 1914]; 71 Peel Street, Kensington, W. (13th County of London Territorials).
MACKENZIE: Frederick Wheatley [*P.* 1908]; 20 Oakwood Gardens, Seven Kings, Essex. (Middlesex Regiment.)
MANSFIELD: Roland Edward [*P.* 1912]; "Torquay," Torquay Drive, Leigh-on-Sea, Essex. (Royal Engineers.)
MARTINDALE: Christopher James Fawcett [*P.* 1904]; Moor Side, Garden City, Carlisle. (Royal Engineers.)
MERCER: John Frederick Lees [*P.* 1911]; 11 Park Mount, Revidge, Blackburn. (Royal Engineers.)
RAMSDEN: Eric Alfred [*P.* 1912]; 27 Hyde Terrace, Leeds. (West Yorks Regiment.)
REED: William James [*P.* 1912]; 11 Theresa Street, Blaydon-upon-Tyne. (Royal Naval Air Service.)
REES: Frederick William [*P.* 1911]; 1 Lan Park Road, Pontypridd. (Royal Engineers.)
SHIELDS: George Darnley [*P.* 1912]; 258 Otley Road, Bradford. (Royal Engineers.)

SMITH, Arthur [*P.* 1909]; 19 West Hill Road, Luton, Beds. (Royal Engineers.)
TAYLOR: John Alexander Chisholm [*P.* 1909]; 29 Queen Street, Oldham. (10th Bn. Manchester Regt.)
WHARF: Henry Francis [*P.* 1913]; 106 Coltman Street, Hull. (East Yorks Regiment.)
WHITE: Raymond Charles [*P.* 1913]; 6 Bierton Hill, Aylesbury, Bucks. (Royal Bucks Hussars.)
WILLIAMS: Percy James [*P.* 1911]; "Carne," Carmarthen. (Welsh Regiment.)
WOOD: Thomas Spencer [*P.* 1913]; Hawthorne House, Handsworth Wood. (Royal Field Artillery.)

Final and Special.

The Final and Special Examinations were held in London from the 24th June to the 2nd July. Of the 52 candidates examined, 27 passed, and the remaining 25 were relegated. The successful candidates, given in alphabetical order, are as follow :—

ADAMS: Percy Joyce [*S.* 1911]; Fairmead, Woodside Road, Woodford, Essex.
ANDREW: Harry [*S.* 1912]; 56 Whitefriargate, Hull.
BALSARA: Pherozshah Fardoonji [*Special*]; 6 Highbury Place, Highbury, N.
BENNETT: James [*S.* 1914]; c/o Messrs. John Burnet & Son, 239 St. Vincent Street, Glasgow.
BRUCE: Reginald [*Special*]; 21 Holdenhurst Avenue, North Finchley, N.
CATCHPOLE: Edgar Gooding [*S.* 1908]; 46 Christchurch Street, Ipswich.
DUNCAN: Alexander McLauchlan [*Special*]; Rahoy, Lenzie, Dumbartonshire.
FRANCIS: Eric Carwardine [*S.* 1911]; 14 St. Andrew Mansions, Dorset Street, W.
FYFE: James Simpson [*S.* 1913]; 147 Hunterhouse Road, Ecclesall, Sheffield.
HORNIMAN: John Henry [*S.* 1909]; c/o Messrs. Stevens & Gregson, 32 Victoria Street, S.W.
LOWETH: Sidney Harold [*S.* 1913]; 67 Downs Park Road, Hackney Downs, N.E.
MACLAURIN: Robert William [*Special*]; 8 Mecklenburgh Street, W.C. [Auckland, N.Z.]
MELDRUM: Percy Hayman [*Special*]; 8 Mecklenburgh Street, W.C. [Melbourne.]
MITCHELL: Cyril Hawthorn [*S.* 1914]; c/o Messrs. Alex. Cowan & Sons, Ltd., 24/25 Upper Thames Street, E.C. [Auckland, N.Z.]
MUSMAN: Ernest Paul Brander [*S.* 1912]; 27 Upper Phillimore Place, Kensington, W.
NICHOLS: Charles Edwin [*S.* 1911]; Rectory Farm, Eckington, Sheffield.
PACE: Charles Lancashire [*S.* 1907]; 28 St. George's Street, Primrose Hill, N.W.
REIVE: Thomas [*S.* 1908]; Glencairn, Erwood Road, Levenshulme, Manchester.
ROBERTSON: Manning Durdin [*S.* 1911]; 50 Norfolk Sq., W.
ROBINSON: Alfred Douglas [*S.* 1909]; The Abbey, Thorpe-le-Soken, Essex.
SAYER: Harvey Robert [*S.* 1905]; 3 Havelock Road, West Marlands, Southampton.
*TAKEKOSHI: Kenzo; 160 Brompton Road, S.W.
TURNER: Albert Isaac [*S.* 1909]; 65 Wilmington Gardens, New Barking, Essex.
WALKER: Harold Frederick [*S.* 1913]; 13 New Street, Dorset Square, N.W.
WARDROP: James Hastie [*Special*]; 8 Mecklenburgh Street, W.C. [Melbourne.]
WILLIAMS: Enoch [*S.* 1908]; 50 Canada Road, Cardiff.
YOUNG: William Cecil [*S.* 1910]; 19 King's Drive, Heaton Moor, Stockport.

* Under a special Regulation this gentleman, being a foreign subject and not eligible for membership, will be granted a Certificate.

The number of failures among the relegated candidates in the Final Examination was as follows :—

A. Design	12
B. Construction—	
(1) Foundations, Walls, Roofs, &c.	17
(2) Iron and Steel	19
C. Hygiene	19
D. Properties and Uses of Building Materials	9
E. The Ordinary Practice of Architecture	13
F. The Thesis	3

The Final: Designs approved.

The Board of Architectural Education announce that the designs submitted by the following Students have been approved :—

SUBJECT XXI.

(*a*) DESIGN FOR A BANDSTAND IN A PUBLIC PARK.

Brandon : C. J.	Hutton : L. D. H.	Tranmer : F.
Dartnall : J. A.	Kellock : A. D.	Tubbs : G. B.
Day : X. F. C.	Munguia : G.	Wilkinson : F.
Duncan : R. A.	Reixa : F.	Woodhouse : F. G. M.

(*b*) DESIGN FOR A HOSTEL FOR MALE STUDENTS ON A DETACHED SUBURBAN SITE.

Sunter : M. C.	Vinden : G.
Taylor : R. V.	Wilson : J.

MINUTES. XVII.

At a Special General Meeting summoned by the Council under By-law 65, and held Monday, 5th July, 1915, at 8 p.m.—Present: Mr. H. V. Lanchester, *Vice-President*, in the Chair; 20 Fellows (including 9 members of the Council), 13 Associates (including 2 members of the Council), and 1 Licentiate, the Minutes of the Meeting held 21st June having been published in the JOURNAL were taken as read and signed as correct.

Professor S. D. Adshead [*F.*], acting in the absence of the Hon. Secretary, announced that Lieut. John Nixon Horsfield, of the Royal Naval Volunteer Division, *Associate*, elected 1907, had died of wounds received in the Gallipoli campaign, and it was resolved that the deep regrets of the Institute for the loss of its gallant Associate be recorded on the Minutes, and that a message expressing their heartfelt sympathy be sent on behalf of members to his widow.

The Chairman having announced the object of the meeting —viz., to consider an amendment of the Regulations for Architectural Competitions—moved that the following alterations proposed by the Council be made in the Regulations :—

1. The second paragraph to read :—"Members of the Royal Institute of British Architects and of its Allied Societies are only permitted to take part in Competitions in accordance with these Regulations, which are intended to apply to all Competitions other than private Competitions instituted by private individuals or firms."
2. The footnote at the bottom of the first page to be omitted.

Mr. Herbert A. Welch [*A.*] having seconded the motion, a discussion ensued, in the course of which Mr. A. R. Jemmett [*F.*] moved as an amendment that the Regulations be so altered as to be applicable to all competitions, including those promoted by private firms.

Professor Adshead proposed that the concluding words of the paragraph should read : "other than private competitions instituted by individuals or firms representing private interests."

Mr. Jemmett's amendment being about to be voted upon, Mr. Herbert W. Wills [*F.*] questioned whether the quorum required under By-law 67—viz., 40 members—was present, and suggested a count.

The Chairman directed a count, and it being reported that 33 members only were present, the Chairman closed the meeting, the proceedings terminating at 9.10 p.m.